# DEPARTMENT OF THE INTERIOR DOMINION OF GANADA

### REPORT

CHE WILL

## COMMISSIONER OF DOMINION PARKS

FOR THE

YEAR ENDING MARCH 31

PART V., ANNUAL BUPORT, 1918

OTTAWA GOVERNMENT PRINTING BUREAU 1912

Lake Agnes, Mirror Lake and Lake Louise, near Laggan, Rocky Mountains Park.

Frontispiece.

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#### REPORT OF THE COMMISSIONER OF DOMINION PARKS.

DEPARTMENT OF THE INTERIOR,
DOMINION PARKS BRANCH,
OTTAWA, July 4, 1912.

W. W. CORY, Esq., C.M.G., Deputy Minister of the Interior, Ottawa.

SIR,—I beg to submit a report for the fiscal year 1911-12, with respect to Dominion Parks.

During the year a change was made in the matter of parks administration. Prior thereto there was no distinctive parks administration. In addition to his many other duties the Superintendent of Forestry had to supervise the management of all parks matters. A recognition of the potentialities in connection with National Parks and the essential differences in the administrative requirements concerning National Parks and National Forest Reserves led to the detachment of the parks from the Forestry Branch and to the organization of a separate branch charged with the administration of parks alone.

It is interesting to note that the United States is following Canada's example in the matter of specializing in regard to National Parks administration. An agitation for the establishment of a Parks Bureau, at Washington, culminated in the following message to Congress from President Taft, on February 2, 1912:—

'I earnestly recommend the establishment of a Bureau of National Parks. Such legislation is essential to the proper management of those wondrous manifestations of nature, so startling and so beautiful that everyone recognizes the obligations of the Government to preserve them for the edification and recreation of the people. Every consideration of patriotism and the love of beauty and of nature and of art require us to expend money enough to bring all these natural wonders within easy reach of our people. The first step in that direction is the establishment of a bureau which shall take upon itself the burden of supervising the parks and of making recommendations as to the best method of improving their accessibility and usefulness.'

The re-organization of Dominion Parks administration followed the enactment in May, 1911, of the Dominion Forest Reserves and Parks Act. This Act repealed previous parks legislation and provided that the Governor General in Council might set aside suitable areas to be maintained and made use of 'as public parks and pleasure grounds for the benefit, advantage and enjoyment of the people of Canada.'

#### CHANGED AREAS.

When the parks were re-arranged under the new Act some changes were made in the boundaries. The areas now administered by the Parks Branch are:— may be comfortably and safely reached; special care in the matter of the dust nuisance and the rough road nuisance; supervision over sanitary conditions; water supply, horses and vehicles, guides, drivers, charges and rates; furnishing of full and reliable information; and, generally, in not only reducing discomforts to a minimum but in so administering matters that the tourist shall be as satisfied with the treatment received while in the parks as he inevitably must be with the science wonders he has viewed. The efforts of the Branch are being directed towards an organization dealing effectively with respect to details concerning all these various matters.

#### DEVELOPMENT WORK.

Development work in the parks relates chiefly to roads, trails, streets, sewers, water works and bridges. On this account engineering supervision has been provided. There is an engineer on the Head Office staff and also an engineer in the field. The plan adopted in this connection, in relation to road construction, is that the engineer on the ground shall by careful survey work locate the route with a view to getting the best scenic results, safety, permanency and ease of maintenance. He must go fully into the matter of grade, drainage, curves, foundations and materials. He also has carefully to estimate costs. He reports to head office, where his details are examined by another engineer. Repairs of any extensive character are dealt with in the same way. In this matter of roads it is hoped in this way to make them all permanent, smooth, dustless, mudless, safe and altogether attractive.

The general policy regarding other construction matters is similar to that in relation to roads.

#### WORK OF 1912-13.

For the year 1912-13 it is proposed to confine attention in the matter of roads and trails almost exclusively to perfecting as far as possible those already constructed. Very little new work is contemplated. In the matter of new work it is felt that best results can be obtained by working out a comprehensive plan of development covering each park in its entirety and then progressively carrying out such plan; each unit of work eventually forming a link in a comprehensive whole.

With a view to securing roads of the best possible character the department has purchased an eight-ton steam roller, a rock crusher, and a concrete mixer. Moreover, a reservation of tar-sand (asphalt) area in the Fort McMurray country has been made for parks purposes. It is expected a railway will be completed to Fort McMurray within two or three years and that the department will then be able to asphalt its park roads at a comparatively small cost.

#### CONSERVATION WORK.

Of equal importance with construction and development work in the parks is the work of conservation. This applies to the natural beauties and scenic wonders, to the forests, animal, fish and bird life. This work is carried on by a staff of game wardens who patrol the parks from end to end. Fire is, of course, the most serious menace. Very good results have been obtained from the system of fire patrol and protection in operation for several years. However, the practice of the branch is to keep in touch with the forestry branch experts for advice and suggestion and also to co-operate with the forestry officials with a view to getting the best possible results. Plans in regard to fire protection are being developed not only on the lines of patrolling, but also in the matter of a comprehensive trail system, telephone lines, signal stations, depots with stores for emergencies, organization of men, pack horses and equipment available at all times for emergencies; construction of fire guards; disposal and removal of dead timber.

#### FINANCIAL ADMINISTRATION.

Careful attention has been given to organization in regard to the financial end of the work. The object has been to provide a system whereby a maximum of value and results is secured with respect to every expenditure made; and whereby revenue potentialities are developed with a view to eventually making the parks self-sustaining.

In the matter of expenditure the system developed controls first with regard to the initiation of work and then provides by a variety of inspections and reports from different officers a close check upon the work, enabling head office when approving of the accounts for payment to calculate whether the amount of work done represents an adequate result for the money concerned. In the matter of the purchase of ordinary supplies the system adopted provides that no accounts can be paid unless accompanied by a requisition bearing the signature of the foreman or other employe requiring the supplies, the approval of the superintendent of the park and the receipt of the person to whom delivery was made. A store organization has also been provided for under which, by means of requisitions and receipts, individual responsibility is established with respect to every tool, implement or other article owned by the department. Finally all accounts of whatever nature are audited first in the chief superintendent's office and again by the accountant of the branch.

#### REVENUE.

The revenue collected in the various parks in 1911-12 was as follows:-

| Collected by | y Parks Branch            | \$33,208<br>58, <b>5</b> 61 | 170.00 |
|--------------|---------------------------|-----------------------------|--------|
| "            | Timber and Grazing Branch | 7,434                       | 94     |
|              |                           | \$99,205                    | 11     |

In some cases these dues are on berths partly within the parks and partly outside. There is no way by which the part actually collected within the parks can be fixed.

A new source of revenue was a royalty on ice cut within the park during the past winter. The rate was two cents per ton and the revenue totalled \$430.62.

A vigorous policy of collection of arrears of lot rentals in the parks was inaugurated last fall. As a result nearly \$900 arrears have been collected out of a total of \$1,075 dealt with. In addition, seven cases of arrears had to be submitted to the Department of Justice, totalling \$407. That department has secured the cancellation of the leases concerned and is now suing for the recovery of the money.

Careful investigation is being carried on with regard to sewer, water and other rates to ascertain that all the revenue due the department is collected. Moreover, it is expected a substantial revenue may be secured by the disposal of old buffalo in the herd at the park at Wainwright. Natural conditions require that a certain number of old buffalo bulls should be disposed of each year. As soon as a buffalo bull becomes aged and somewhat enfeebled the younger bulls drive him out of the herd and eventually kill him. When they do kill him they so lacerate the remains that head, robe and hide are destroyed. A prime bull will yield in the way of revenue approximately:

| Head (mounted at cost of \$150) | <br>\$500 to \$800. |
|---------------------------------|---------------------|
| Robe                            | 100                 |
| Meat                            | 50 to 100.          |

There are a large number of aged bulls in the government herd and a substantial revenue should therefore be derived therefrom. Attention is also being given to the question of revenue from wild fur-bearing animals within the parks. Ontario now

derives a large revenue from its wild animals in Algonquin Park and it is felt that a similar result may be obtained in the Dominion parks.

Taking the parks as a whole there is every reason to look forward to a return in direct revenue equivalent to a good rate of interest on the capital spent upon the parks; and, indeed, the capital expenditure may eventually be found to be equalled by the direct revenue.

The details of the work accomplished during the year are dealt with in the reports of the Chief Superintendent and of the Superintendents of the various parks which follow. There are a number of matters of general interest which, however, call for special attention.

#### SCHOOL LANDS IN PARKS.

During the year the question arose as to whether the school lands provisions of the Dominion Lands Act applied to the parks. The matter was submitted to the Department of Justice and an opinion received from it that the provisions in question do not apply.

#### FIDDLE CREEK DRIVE.

A contour survey of the district between Athabaska river and Fiddle Creek hot springs, Jasper park, was commenced last summer and will be completed during 1912. This is being made with a view to securing the best possible location for a carriage road to the hot springs. The country is a most rugged and difficult one and it is expected that when the road is completed it will provide one of the most spectacular scenic drives on the continent.

#### AUTOMOBILE ROAD.

Work was commenced in the early spring on a bridge across the Bow river, Rocky Mountains Park, at Castle and on a roadway from that point to the British Columbia boundary in Vermilion Pass. This road is a link in an automobile road scheme in which the Canadian Pacific Railway, the Government of British Columbia and the Dominion Government are jointly interested. The scheme involves the completion of an automobile road from Calgary to Vancouver. The Dominion is building that portion of the roads through the parks and the railway company and the province are responsible for the balance. The Dominion has already built sufficient roadway to enable automobiles to travel from Calgary to Banff, and several miles beyond. Work is to be proceeded with during 1912 from the present terminus to Castle. This will connect with the other portion of parks road from Castle to Vermilion and there join the British Columbia-Canadian Pacific Railway portion of the road. From the Vermilion Pass the road is located via the Windermere lakes to Wardner, on the Crowsnest line. From this point the road, by linking up with existing roads, will reach Vancouver. Going eastward it will proceed via the Crowsnest to Lethbridge. Thus in a short time, not only will it be possible to go to Calgary and other points east to Vancouver by auto but there will also be provided a round trip-Calgary to Banff, to Castle, to Vermilion, to Wardner, to Lethbridge, to Calgary—of 500 miles during which the autoist will at all times be either in the Rockies or in full sight of them.

#### POWER DEVELOPMENT.

During the year permission was given the Calgary Power Company to build a conservation dam at the outlet of Lake Minnewanka, Rocky Mountains Park. Elaborate provisions were incorporated in the agreement adequately to protect parks interests. One provision required the removal close to the ground and the destruc-

tion of all timber along the lake within the area to be flooded and for a distance of 10 feet above thereof. The consequence has been the removal of large quantities of dead timber which constituted an eyesore and the substitution of trim, clean cut shores. However, perhaps the most important feature of the arrangement was a provision that the company must make provision in the dam by which the department may carry out a power development of its own. An abundance of electric lighting for Banff, especially during the tourist season, is of the utmost importance, and advantage was taken of the conservation scheme to provide for a development which will give the Department 800 to 1,000 horse-power.

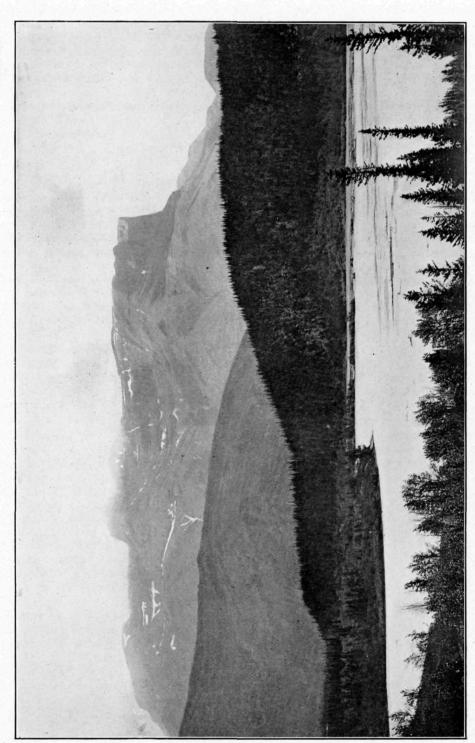
#### NEW BATH HOUSE.

One of the outstanding attractions at Banff is the Hot Springs. The present facilities for bathing both at the Upper Hot Springs and at the Cave and Basin have become quite inadequate. The revenue from the Springs last year was \$4,808.75 and it would have been much larger had the Department been able to accommodate all who wished to use the baths. During the summer Mr. A. Van Damme, the foremost bath house architect in the United States, was authorized to prepare plans for two new bath houses. Mr. Van Damme spent some time at Banff and in September submitted preliminary plans. It was too late in the year to proceed with any building operations but an appropriation has been made for 1912-13 for bath house construction and it is expected that while the plans before the Department may be too elaborate for present purposes, at least one new bath house will be built during the fiscal year.

At Buffalo Park, Wainwright, the Department has purchased an equipment of horses and implements with a view to doing its own work in the matter of ploughing fire guards and providing hay for the buffalo. The cost of this work during 1911-12 was about \$3,000 and higher in other years. The cost of the outfit necessary to undertake it ourselves was approximately \$5,000. In the past great difficulty was always experienced in hiring teams and otherwise arranging for this important work. All this trouble will now be obviated and it is calculated that in a few years the Department will have saved the cost of the equipment purchased.

I have the honour to be, sir, Your obedient servant,

> J. B. HARKIN, Commissioner of Dominion Parks.



Roche Miette, Athabaska River in foreground,—Jasper Park.

#### No. 1.

#### REPORT OF THE CHIEF SUPERINTENDENT OF DOMINION PARKS.

EDMONTON, ALBERTA, April 1, 1912.

The Commissioner of Dominion Parks, Ottawa, Ont.

Sir,—I have the honour to submit herewith my fourth annual report as Chief Superintendent of Dominion Parks for the fiscal year ending March 31, 1912.

As you will observe by the report the predictions made by me, a few years ago, in regard to the Mountain Parks have been more than realized and their development has already exceeded the most sanguine expectations.

It is with sincere pleasure that I am able to report that judging from past development, and present indications, it is a difficult matter to estimate the limit of the usefulness of these Mountain Parks as unique pleasure and health resorts, not only for the Dominion, but for visitors and tourists from almost every part of the world.

For convenience I have arranged this report under the following heads:

- 1. Report of Chief Superintendent of Dominion Parks.
- 2. Report of Superintendent of Rocky Mountains Park.
- 2. (a). Report of the Curator of Banff Museum.
- 2. (b) Analysis of Nationalities of visitors to the hotels.
- 2. (c) Report of the Alpine Club.
- 2. (d) Statistical Summary re roads, trails, improvements, &c.
- 3. Report of the Superintendent of Yoho and Glacier Parks.
- 4. Report of Superintendent of Buffalo Park.
- 5. Report of Superintendent of Elk Island Park.
- 6. Report of Superintendent of Waterton Lake Park.

As Jasper Park was administered through this office during the past fiscal year the details of the work done there will be found in my own report.

In presenting my report for the year ending March 31, 1912, I have attached reports from the superintendents of the different parks in control of this branch of the Department of the Interior. These reports give in detail an account of the work carried on in, and the operation of parks under their charge.

#### ROCKY MOUNTAINS PARK.

The increase of popularity of this now famous resort may be judged by the comparison of the number of people who have visited the park each year for the last ten years.

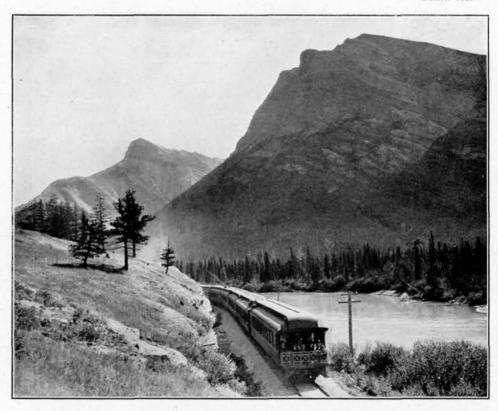
| Year. |  |  |  |  |  |  |  |  |  |  |  |  |      |  | of Visitors. |
|-------|--|--|--|--|--|--|--|--|--|--|--|--|------|--|--------------|
| 1902  |  |  |  |  |  |  |  |  |  |  |  |  | <br> |  | <br>8,516    |
|       |  |  |  |  |  |  |  |  |  |  |  |  |      |  | 10,696       |
|       |  |  |  |  |  |  |  |  |  |  |  |  |      |  | 11,752       |
| 1905  |  |  |  |  |  |  |  |  |  |  |  |  | <br> |  | <br>17,605   |
| 1906  |  |  |  |  |  |  |  |  |  |  |  |  | <br> |  | <br>30,136   |

#### SESSIONAL PAPER No. 25

| Year.           | No. o | f Visitors. |
|-----------------|-------|-------------|
| 1907 (9 months) | :     | 28,735      |
| 1908            |       |             |
| 1909            |       | 39,780      |
| 1910            |       | 56,462      |
| 1911            |       |             |
| 1912            |       | 73,725      |

This steady increase in travel has resulted in an equal increase in trade for all classes of business, as well as a corresponding increase in revenue in the park.

PLATE III.



The Gap-Entrance to the Canadian Rockies,

It will be noticed from the report of the Superintendent of Rocky Mountains Park at Banff that the revenue of the park, from all sources, with the exception of the royalty on coal, shows a very steady and satisfactory increase. This was due to the coal strike in Southern Alberta, which lasted for over nine months. Even with this loss to revenue, it will be noted that the revenue from this park almost equals the total appropriations made for maintenance.

I would suggest that a capital account be established as soon as possible. If this were done it would be found that the revenue, exclusive of the amount paid for permanent structures, such as roads, bridges and buildings, would be almost double the amount required for salaries, repairs and maintenance. One thing which prevents an even better showing regarding finances is the fact that at one time a difficulty was experienced in obtaining labourers, due to private interests in the district, which necessitated an increase in the wages usually paid. However, the work which has been performed has been very satisfactory, and I think the expenditure of the few extra dollars has worked out to a good end.

In the matter of fire protection for the forests and game, excellent results have been obtained from the fire laws governing that phase of the work of conservation, and residents in the forest reserves are taking as keen an interest in protection as are those paid to look after the work. There is no doubt that the staff of fire guardians is the most important we have. To them is attached a great responsibility in furthering the ends of the Government of the Dominion to maintain and perpetuate the beauties of mother nature, which were given us with a bountiful hand.

As the years roll around one connected with park management becomes more and more convinced in favour of good organization in forest work. Since my last report was issued the western newspapers, and a few eastern ones have sent their representatives through several of the parks, and through their efforts the importance of such work is being told the people, comparatively few of whom were previously aware of its great possibilities.

The majority of forest fires throughout the mountains are caused by sparks from engines, which fires I am certain will be greatly diminished by the new legislation which requires that all engines be equipped with screens over their exhausts. I also notice that starting July 1, this year all engines between Field and Vancouver will burn oil as a fuel. This will add another great asset to our forest and game preserves, and reduce the fire danger from that source to an absolute minimum. I cannot urge too strongly upon the Department the need of seeing that every railroad lives up to these new requirements in every particular.

#### GAME.

Two years ago, in my annual report, I mentioned the fact that parties travelling through the Rocky Mountains Park were able occasionally to see Rocky Mountain goats near their line of travel. I am pleased to report this year that, owing to our system of game protection, this class of animal is constantly becoming more tame, and along the Banff-Laggan road one can see a flock of more than twenty-five feeding along the road any day. Indeed, so tame are they becoming that those to whom they are accustomed are able to approach them almost as closely as a farmer can to his ordinary sheep. As a matter of fact tourists have been able to make excellent photographs of the flock.

The game protection staff now consists of five permanent wardens, who patrol all portions of the park on regular trails with small cabins constructed at different points where they can remain over night, thus avoiding the necessity of packing tents with them. Each is furnished with a pony and saddle, besides a pack horse to carry supplies, so that they are able to remain out several days at a time, or as long as their patrol duty in any particular territory may require. By this means any killing of game by Indians or tourists that might have prevailed in previous years, which was by no means a rare occurrence, especially in outlying portions, has been entirely eliminated, so far as any of the wardens or superintendents have been able to ascertain.

In addition to this the regulation prohibiting the carrying of fire-arms in the different parks, unless they are sealed, has, I think, removed a great source of temptation, which was, perhaps, responsible for infractions of the game laws. I am firmly convinced that the sense of the wild animals in the parks has told them that they are protected, and to me my contention is proven by the fact that all game is now less timid of the approach of men and less fearful of natural enemies in the form of dogs and guns.

Coyotes, which have been so destructive to all small game, especially while they are having their young, besides being a menance to enclosed animals, have had their numbers very much lessened during the past year, forty-five having been destroyed in Banff alone, while almost an equal number were killed at Buffalo park. All game wardens have been equipped with rifles and ammunition, as well as field glasses, so that now they are in a much better position to destroy any carnivorous animals they may come across, such as wolves, lynx, mountain lions and coyotes. Little trouble has been met with on account of bears, and only occasionally have we been called upon to destroy an odd one which came into the city limits, thus frightening tourists from going into the hills.

A particularly pleasing paragraph of this report is the fact that we have been successful in capturing a mountain sheep (ewe). After the capture of two rams two years ago, I offered two reliable trappers in Banff, \$50 if they would deliver an adult female mountain sheep at Banff. However, one of our own men while on duty, was fortunate enough with the help of other park men, to make the capture. At a point four miles from Banff there is a sulphur spring which is a tavourite watering place for these animals. Here one of the foremen, W. H. Green, met a ewe in the middle of the road, and, after frightening it into some deep mud, jumped in himself and succeeded in throwing it on its back and tying it so that he could bring the animal to town.

At the end of March there were the following large animals in the enclosures at Banff: Buffalo, 25; moose, 8; elk, 17; mule deer, 8; white tail deer, 3; Persian sheep, 3; Angora goats, 9; Rocky Mountain sheep, 3; Rocky Mountain goat, 1; four horned sheep, 3; six legged sheep, 1.

#### FISH AND FISH HATCHERY.

Since my last report fishing in the park has attracted a greatly increased number of people to enjoy the sport. I must, however, draw your attention to the fact that the big catches which were common in former years are becoming almost unknown. The only conclusion to arrive at, more especially with regard to the more accessible lakes and streams, is that they are rapidly being fished out, and that it will be necessary in the near future, either to re-stock many of them, or to curtail, or even abolish the open season for some time.

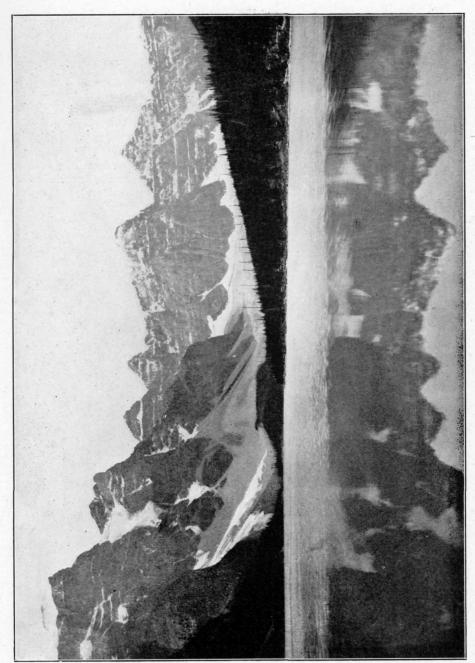
In connection with the above, I would strongly recommend the establishment of a properly equipped fish hatchery at some of the many suitable locations to be found within the limits of the park. The fishery commissioners, when they were through here last year, stated that they would strongly recommend this hatchery, but as yet

I have heard nothing further of it.

The cost of a building in connection with a moderate sized hatchery would not be very great, while the cost of maintenance is comparatively small, one or two men being all that would be required to oversee the work. In this way millions of small fish could be transplanted into the various streams, not only in the park, but in the provinces surrounding it, thus adding one more to the many attractions to be found.

#### ROADS AND BRIDGES.

It will, of course, be necessary during 1912 to give considerable attention to all the completed roads in the park, of which there are 96.5 miles, which you will find detailed in the superintendent's report. The Banff-Laggan coach road was further added to by the completion of about three miles. A cut was made through the green timber and the completion of the work will be made during the coming year, as an appropriation for that purpose has been given. The green timber which was cut was taken to the sawmill, and has supplied 35,000 feet of excellent bridge timber. Roads



Moraine Lake. Valley of the Ten Peaks, near Laggan.

to the different points of interest about the town have been thoroughly repaired, while all town streets are in excellent condition.

The Lake Louise to Lake Moraine road has been completed after much laborious work through a rock cut. Owing to heavy traffic, however, it is extremely difficult to keep this road in condition, as ruts are cut in it, which fill up with water and eventually become much larger ruts. The total amount expended on this road during the year was \$1,645.67.

As a matter of fact, all park roads have been built of material found in the immediate vicinity, which consists of gravel and clay. In the past this has answered very well for the wear given it by light conveyances. I notice, however, that during the past few years, when heavy tallyhos have been used, this material will not stand the heavy traffic. The main road from the Canadian Pacific railway station to the various hotels, owing to the large amount of construction work called for in enlarging the buildings, and the consequent amount of heavy teaming, has been almost totally destroyed. To meet this contingency it has been found necessary to arrange to construct solid macadam roads, and for this purpose a large rock crusher and steam roller have been ordered. It is expected they will be on hand in May, when a thorough system of macadam roads throughout the entire park will be built. The Canadian Pacific Railway Company is adding an extension to its hotel, spending about half a million dollars on the Banff Springs hotel and about \$425,000 at Lake Louise, and the cement, iron and other materials were teamed over the roads in the early spring, destroying the crown which for years had withstood the light tourist traffic.

Outside the Banff-Windermere road, the main work this coming year will be wholly repairs, the intention being to work on all present roads until they are in a

first-class condition, before starting on any of the proposed new ones.

During the past year about 100 miles of new trails were constructed in the Rocky Mountains Park, at a cost of slightly over \$3,000. I would strongly recommend that this class of work be carried on upon a liberal scale. Trails serve a double purpose, not only making it possible for tourists to wander or ride as far as they like, but are of great assistance to the fire and game wardens in reaching remote places in the mountains, which have been hitherto practically inaccessible. A thorough network of these trails, which can be built at a cost of only about \$30 a mile, would prove invaluable were a fire to break out, as the fire could then be attacked from all vital points and very easily extinguished.

#### TELEPHONES.

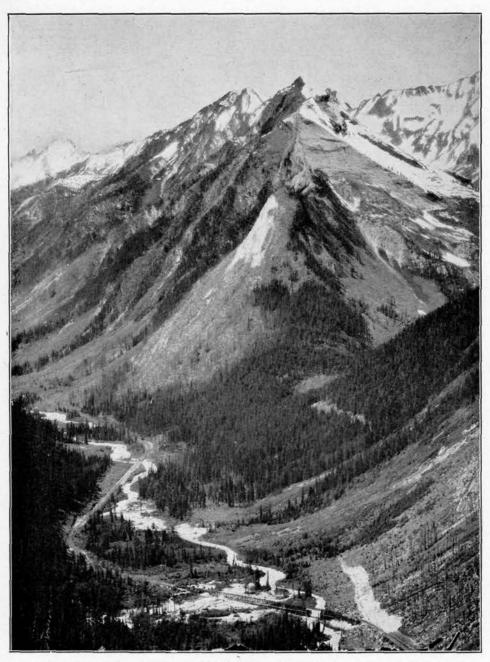
In connection with the telephone system at Banff, I would strongly recommend that an underground system of wiring be inaugurated as soon as possible, as with the growth of the town and its possibilities, overhead wiring is not adding to its attractiveness. In many cases beautiful shade trees have had to be cut down to make room for the wires. These cannot be replaced, but an underground system would save further destruction of Banff's beauty from this cause.

#### SULPHUR BATHS.

I am glad to note that a substantial grant has been made to build a new bath house, a matter that is gone into quite thoroughly in the report of the superintendent. I expect that work will be started in this connection very shortly.

You will note from the detailed statement of the number of guests and bathers at Banff, that there was an increase during 1911, of over 10,000 over the previous year.

Among important exploratory expeditions undertaken by the Alpine Club and its members were: (a) Jasper Park and Mount Robson topographical survey, under



Valley of the Illecillewaet, Glacier Park.

Director A. O. Wheeler, F.R.G.S., of which an elaborate report accompanied by a map is being prepared. This expedition was accompanied by a party of four naturalists from the Smithsonian Institute of Washington, in charge of Mr. Hollister, Assistant Curator of Mammals, U. S. National Museum. (b) Exploration in the mountains of Northern Alberta by Dr. Norman Collis, F.R.S., and A. L. Mumm. (c) The Mamquan mountains at the head of Howe Sound, by Vancouver members under the leadership of B. S. Darling. Other expeditions and climbs were made in different parts of the National parks. Mount Sir Sandford was again unsuccessfully essayed.

The Canadian Alpine Journal, containing reports of the previous year's work and much information on the mountain regions, was issued to members and circulated

among the Alpine and Geographical Societies of the world.

#### YOHO AND GLACIER PARKS.

In Yoho and Glacier parks all roads and bridges were given a thorough overhauling, and trails were cleared of fallen trees. Additional rustic seats were placed along two of the drives, and the National Bridge and Emerald lakes drives were connected by a carriage road, thus making a return drive. Another great beauty spot was added to the attractions of the park by the building of a road from the Natural Bridge to a canyon a distance down the Kicking Horse river. The old grade of the C.P.R. which was abandoned upon the completion of the spiral tunnels, was used to make a carriage road of three and one-half miles from Field. The bridges along the road were covered with three-inch plank and railed on each side. The superintendent urges in his report that this road be extended and that an appropriation be made for the purpose. In this regard I entirely concur with him.

Regarding the protection of game in this park, I hope that some arrangement can soon be made with the Provincial Government of British Columbia to assist in

the propagation of the many species to be found in the reserve.

In connection with the drive in Glacier Park, from Glacier to the Nakimu Caves, which we were unable to finish last year, I am glad to notice that an appropriation has been made for its continuance, and I trust the road will be finished before the fall of 1912. Work will also be started the coming year on the road to Stephen, the eastern boundary of the park, for which an appropriation has been made. When completed I am convinced it will make one of the most beautiful drives in America.

The usual work of repairs will be carried on this year, and a steel structure bridge will be built across the Kicking Horse at Field, the appropriation for which has been made. The balance of the work consists of extensive repairs to the present roads and

fire and game protection.

#### BUFFALO PARK.

The report of the Superintendent of Buffalo Park is very encouraging, and he makes several suggestions which I think it would be wise to follow. The rainy season in the neighbourhood during the summer and fall of 1911 retarded the progress considerably, but if the new suggestion that three hundred acres be put in oats is adopted, all danger from a shortage of food will be removed. The matter of fire guards about this park is a very important one, and it will be well to see that the utmost precaution is taken against this danger of fire.

Acting under the Department's instructions an outfit of horses and equipment

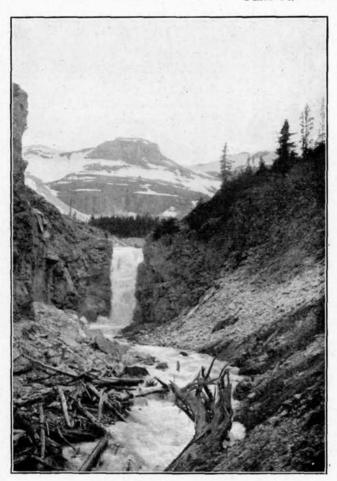
has been purchased and a large block of land broken and seeded.

The increase of the herd of buffalo of 172 head during the year is very gratifying. Regarding the matter of old bulls dying during the winter or being killed by younger ones, I would strongly advise that the superintendent's recommendation that a number of these be killed in the fall when their hides are good be approved by the department and the necessary order issued to carry out the recommendation. December is the proper month for this killing. The robe is valued at more than \$100 and the head

about \$500. The meat could be sold for a good price during the Christmas season. As it is now the buffalo die or are killed on the prairie, and are a total loss by the time they are found.

It will be noted that there has been a favourable increase of all animals with the exception of antelopes. They have made no increase whatever, and we are unable to explain the reason. The census at the end of the year showed: Buffalo, 994; moose, 11; elk, 18; deer, 50; antelope, 14.

PLATE VI.



Little Yoho Falls, Yoho Park.

The equipment at this park now is very complete in every respect, and no further expenditure for improvements will need to be made for several years to come, outside of ordinary maintenance, such as fire guards and hay for the buffalo. A very conservative estimate of the buffalo calf crop for this year would be 200; it will probably be nearer 250. During the year eight head were shipped in from Montana by M. Pablo, and it was fully hoped that Mr. Pablo would have been able to clear the range and ship the balance of the buffalo contracted for, but after repeated efforts during the winter, he was forced to abandon the chase, as the animals were scattered over such a wide expanse of country that they could not be collected. He managed to

corral seven head in the mountains in the month of March, and it is expected these will be shipped in a very short time. Mr. Pablo has written asking the government to give him one more chance to clear the range after the snowfall in the autumn, when he will be able to track them, and if the department will grant his request I have no doubt he will be able to make a complete clean-up, as it is his intention to kill any outlaw that he is not able to corral. I may say that, although he was not able to deliver many buffalo during the year it was through no fault of his, as I am well informed he did everything in his power to corral the entire remnant of the herd during December and January.

#### WATERTON LAKE PARK.

I quite agree with the report of the Superintendent of Waterton Lake Park, when he refers to the reduction of the area, as this cutting out of the lakes and also a portion of the land situated between this park and the United States Glacier Park changes the original intention, which was to have this park adjoin the one on the other side of the border and make one huge game preserve. The cutting down of the area entirely cuts out the Waterton Lakes, which are nine miles long, six of which are in Canada. I would strongly urge that, at least, a portion of the mountain section lying between the two parks be restored, as well as the lakes.

About four miles of the road were constructed in the park during the year, and during the month of March a bridge was built over Pass Creek. One of the most dangerous streams in the original area of the park, the Waterton river, is badly in need of a ferry, as at present there is none for 40 miles. The superintendent of the park states that there have already been three fatalities on this river, while many horses have been lost. An appropriation was made for this ferry, but since this was done the river has been excluded from the park and we would not be justified in making the expenditure outside the reserve.

I would like to include in my report the last paragraph of Mr. Brown's report

which I agree with in every particular:-

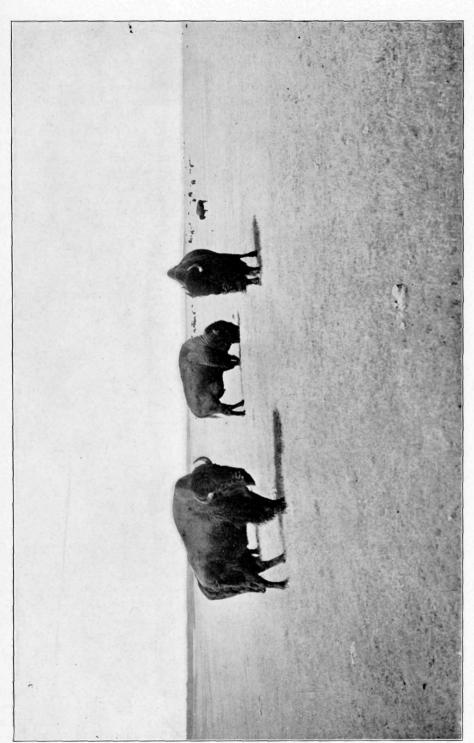
'In conclusion I might add that the enlargement of this park is greatly desired by the people of the district, and also by the sportsmen here and on the United States side. The Campfire Club of America is very anxious to co-operate with any action taken for the protection of our fast disappearing game. There is a vast area here that seems to be useless for any other purpose.'

#### ELK ISLAND PARK.

As will be seen from the report of the Superintendent of Elk Island Park, the animals under his charge have all increased favourably, no loss of any kind being reported, with the exception of one cow that became disabled and had to be shot. The increase in the buffalo was thirteen. Nine moose were shipped in from Banff, and three which were captured in the vicinity of Lesser Slave Lake were added to the herd. The estimated number of elk at present is thirty-five, and deer about forty-five.

#### JASPER PARK,

At the commencement of the fiscal year, April, 1911, Mr. J. W. McLaggan, who had been acting as chief forest ranger and acting superintendent of this park for the previous year, severed his connection with the Parks Branch of the Department of the Interior, and this park has since been under my personal supervision. At that time the end of steel on the Grand Trunk Pacific was at Prairie Creek, 183 miles west of Edmonton, and three miles from the eastern boundary of the park. During



"Monarchs of the Plains."

the months of May and June the steel reached the crossing of the Athabaska river, about twenty-four miles from Parkgate, and in the month of August was completed to Fitzhugh. There are now about 64 miles of the main line in the park on which

trains are running regularly.

At Fitzhugh a twelve-stall roundhouse has been erected, as well as a commodious station with dining hall attached. The work of laying out extensive yards is now well under construction. Up to the present no survey for a townsite has been made, but we are daily expecting an engineering party through there to do this work. An efficient water service has been built through the proposed townsite to the station. This water is brought from a dam on a stream known as Cabin creek, and has a total fall of 102 feet. The water is of the finest quality, and a sufficient supply for some years is assured.

One could scarcely choose a more beautiful spot for the townsite than the one decided on. It is comparatively level over its whole area of two miles long and one mile wide and is quite heavily wooded. The famous old Yellowhead trail runs through it, and is still used as a pathway from the station to the engineers' camps, which are

located on the most beautiful spot on the whole townsite.

Fitzhugh is the first passenger divisional point west of Edmonton, and will no doubt be the most important town, from a railway point of view at least, of any in the mountains east of the British Columbia boundary. As far as Fitzhugh the road follows the Athabaska river, but there it leaves the valley and turns northwesterly up the Miette river. The valley of the Athabaska river, from one and one-half to three miles broad, forms one of the many contrasts noticed in comparing the route of the Grand Trunk Pacific with that of the Canadian Pacific through the Kicking Horse. Its breadth gives the traveller a much better view of the mountains than could otherwise be obtained. The Miette river itself is a much smaller stream than the Athabaska, but has all the turbulency usual in mountain streams.

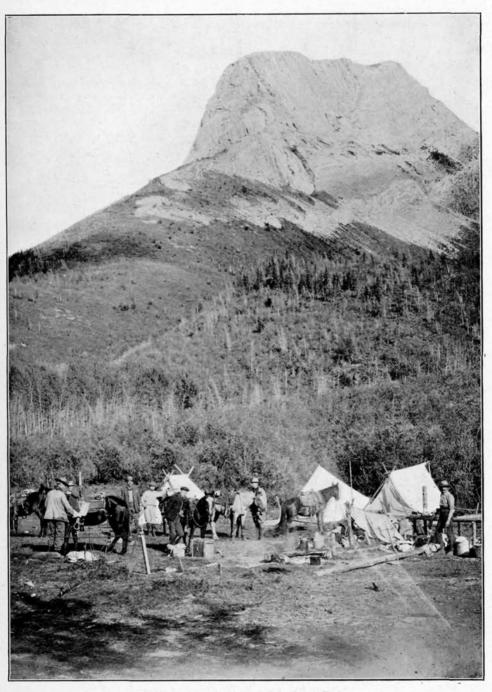
Pocahontas station, where the Jasper Park Collieries are located, will become a more important district each year. A large amount of development work has already been done here by the Jasper Collieries, Limited, and the average daily output of the mine is now 350 tons, although the mark of 500 tons has been reached. The company has its own townsite on a level a couple of hundred feet above the station, and immediately under the Roche Miette, one of the grandest peaks in the park. This peak has 8,100 feet to its credit above the sea level and is 2,900 feet above the coal

mines.

Jasper Park Collieries, Limited, have proved a large quantity of coal in the four claims that have been opened up and many more outcroppings have been discovered on both sides of the Athabaska river, which passes through the property. The seam that is now being worked is a ten foot one, which in places opens out to fourteen feet. The original prospecting was done to find this coal two years ago but actual operations were not commenced until last September. Since that time 45,000 tons of coal have been loaded on cars and consumed on the Grand Trunk Pacific. There are 150 men working now, but this force will be materially increased in the spring, when \$100,000 worth of new equipment will be put in, all electrically driven. Already thirty frame houses have been erected by the company on its townsite, and ten more are in course of erection. These will be rented to employes for from \$10 to \$12 a month, according to size.

The Canadian Northern Railway enters the park on the west side of the Athabaska river, and the right-of-way follows the river. It is fully expected that the steel will be laid through the park to the summit by the end of the summer of 1912.

Fourteen miles to the east are to be found hot springs with a higher temperature and a bigger flow than those at Banff. The water will probably be piped down from its source to the site of the Grand Trunk Pacific Hotel, which is to be built on a



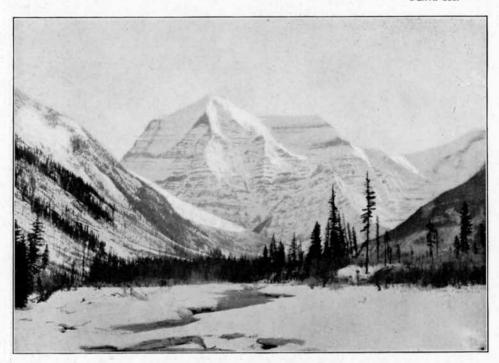
Folding Mountain, from trail in Jasper Park.

hill overlooking Fiddle Creek Canyon, four miles away from the colliery. The canyon is about 200 feet high, and during the time of the spring freshets carries an enormous volume of water. The hotel will cost about half a million dollars, and will be built in such a manner that it can easily be extended.

A trail has already been constructed from the colliery to the hot springs, a distance of about fourteen miles, and surveyors are now engaged in locating a carriage drive to the hot springs, which, when completed, will be one of the best scenic roads in any of our parks.

About thirty miles west of Fiddle Creek a bridle trail has been cut to Maligne Lake, which lies some thirty-five miles south of the railway. This lake is acquiring world wide fame as a beauty spot. Its waters are wonderfully clear and cold, and in

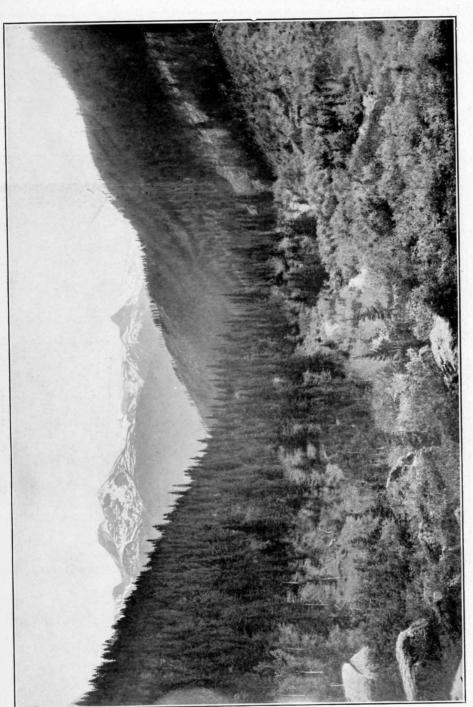
PLATE IX.



Mt. Robson in winter. Height 13,700 ft.

many places sheer walls of rock, thousands of feet in height, rise from the very shores of the lake. In many of the lakes, of which there are great numbers scattered throughout the park, trout are found and caught in large numbers. During last year a great many well known scientific men visited this park and were very enthusiastic in their praise of its beauty. Indeed, several of them declared there was nothing to rival it in beauty in America. Mr. Proctor, the famous sculptor and water-colour artist, spent six weeks in the vicinity of Maligne Lake, and exclaimed enthusiastically on his return: 'It is just as God turned it over.'

The principal work done during the year was the building of the two trails previously mentioned, and in fire and game protection. Until the present railway construction is completed through the park, no very extended system of road making can be undertaken. The principal work for the coming year should be on a carriage drive to the hot springs, so as to make it possible for tourists and others to get to this



Entrance to Yellowhead Pass, Jasper Park.

point. We will also guard very carefully to protect the game from poachers, and the forests from fires. The large number of men employed on construction in blasting and burning makes it imperative that we keep up a careful and continuous patrol.

In conclusion I desire to express my appreciation of the support which I have at all times received from the Department in furthering the development of the Canadian National Parks, and also of the liberality of the grants made by Parliament for this work. I have endeavoured to the utmost of my ability, to expend the money entrusted to me as economically and judiciously as possible so as to ensure the best and most lasting results. The constantly increasing popularity of the parks, and

PLATE XI.

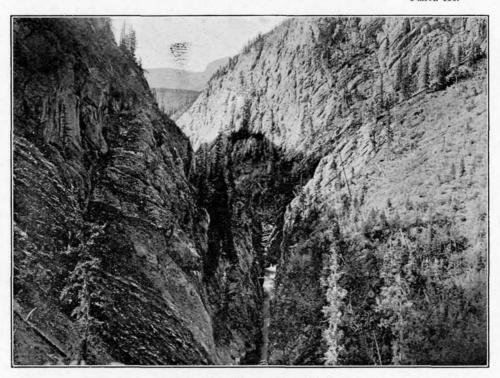


Photo by G. B. Dowling.

Fiddle Creek Canyon, Jasper Park.

the prospects of large additional revenues which are to be derived from different sources would undoubtedly seem to justify the still larger expenditure necessary to keep pace with growing requirements.

I have the honour to be, sir,

Your obedient servant,
HOWARD DOUGLAS.
Chief Superintendent Dominion Parks.



Panorama of proposed scenic route from G. T. P. Hotel to Fiddle Creek Canyon, showing difficulties of construction. Photo by G. B. Dowling.

#### No. 2.

#### REPORT OF THE SUPERINTENDENT OF ROCKY MOUNTAINS PARK-

BANFF, ALBERTA, April 1, 1912.

The Chief Superintendent of Dominion Parks, Edmonton, Alta.

SIR,—I have the honour to submit my second annual report as Superintendent of the Rocky Mountains Park for the fiscal year ending March 31, 1912, and in its preparation I have endeavoured to include and confine the review to such particulars as

PLATE XIII.



Sunset on the Bow River, Banff.

would interest my superiors in the management and administration of the property and public interests entrusted to my care.

The general work of park maintenance and all new construction work progressed during the whole season without any serious interruptions with the possible exception that I experienced some difficulty at one time in securing labourers. I have inspected all the work performed and it is very gratifying to be able to report all new work and repairs as having been completed in a manner above criticism.

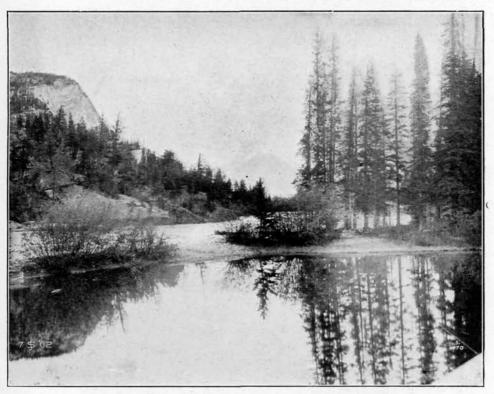
All sources of revenue have increased considerably over the total realized for the fiscal year ending March 31, 1911, except the Mining Lands Branch. Rentals for

coal lands have just about equalled last year's, but the royalty is so small as to be scarcely worth mentioning. This shortage is due to the Alberta coal strike, which went into effect on the 1st of April last. All mines were closed from the 1st of April to about the 15th of December, and even at this time they are not working at full capacity.

#### FIRE AND GAME PROTECTION.

The system, perfected (as nearly so as our staff of game guardians would permit) for the protection of game within the park has been productive of the most satisfactory

PLATE XIV.



Bow River, from near junction of Spray, Rocky Mountains Park.

results. Those consigned to this class of work have been constantly on the alert to prevent any unlawful destruction of game and they report that in no instance has any evidence of such violation of the park regulations been discovered. Rocky Mountains sheep are becoming less timid each year, and during the construction of the Banff to Laggan road, a flock of over twenty-five of these animals could be seen feeding above the road at almost any hour of the day.

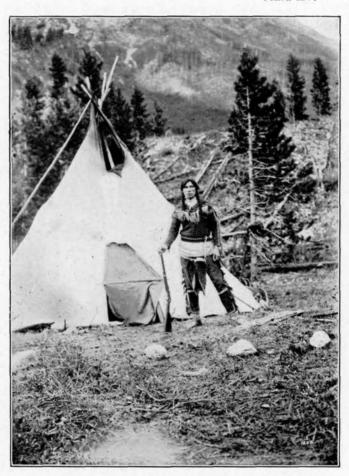
Bears have given us very little trouble this year as we were called upon to destroy but one, in the neighbourhood of the Hot Springs.

Our permanent and temporary game guardians have destroyed forty-five coyotes, which record exceeds that of last season by fifteen animals.

The fire and game guardians employed have shown good judgment in the performance of their duties and the interest in their work has been particularly noticeable by the initiative manifested in their effort to keep all hunting parties under their observation and in preventing violation of the regulations. It is my opinion that the example made of the hunters caught killing game in the park in 1910, has had an excellent moral effect upon those who had been successfully poaching during previous seasons.

I also had a man stationed at the Spray lakes who patrolled the neighbourhood regularly and prevented the dynamiting and catching of fish by unlawful methods From this point we also travelled once a week to Mount Assiniboine.

PLATE XV.

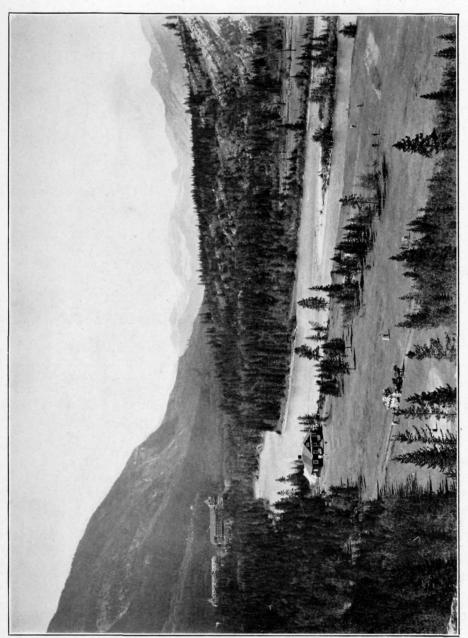


Stoney Indian, Banff.

A man was also located at the new cabin on the Kananaskis and two others were continually scouring the country north of the Canadian Pacific railway track from the Panther creek cabin to the Clearwater and Big Red Deer rivers.

In addition to the men distributed to the foregoing points, I had three men make daily trips on railway velocipedes to extinguish any fires that might have been caused by locomotive sparks, and one other who was on duty at Banff and kept himself posted with regard to all tourists and hunting parties outfitting and leaving from Banff.

The results have been most satisfactory. One man was convicted of catching fish and game unlawfully and fined, and another was found with a shot gun in his possession (unsealed) which was confiscated and the owner fined.



Golf Links, Banff, Rocky Mountains Park.

One small fire occurred about four miles west of Banff near Mount Edith Pass, but did no damage and the only other fire occurred in the neighbourhood of Duthill, about five miles east of Banff. Neither of them was serious and they were at no time beyond control.

It is my opinion that the system inaugurated this year for the protection of fire and game will be an excellent one to follow in the future. With the small staff of seven men and with so large an area to be covered the patrol is not comprehensive enough, but as this was the first year of its trial, I think the results attained by even the few employed in the work should conclusively prove the merit of this system, and warrant the employment of a larger force in order that it may be brought to a state of perfection.

#### ROADS, BRIDGES AND FENCING.

The completed roads within the park all required more or less attention during the season, and before going into details the following list of roads now constructed in the park may be of interest as reference:—

| Miles                                 |    |
|---------------------------------------|----|
| Kananaskis to Banff                   |    |
| Banff to Hot Springs 3                |    |
| Banff to Sundance Canyon 4            |    |
| Banff to lumber camp on Spray river 8 |    |
| Tunnel Mountain drive 5               |    |
| Lake Minnewanka drive 9               |    |
| Banff to Laggan coach road 5          |    |
| Laggan to Lake Louise                 |    |
| Lake Louise to Moraine Lake 9         |    |
| Bankhead road to Buffalo paddock 1    |    |
| Town streets                          |    |
| Loop drive 7                          |    |
|                                       | .5 |
|                                       | _  |
| Total 96                              | .5 |

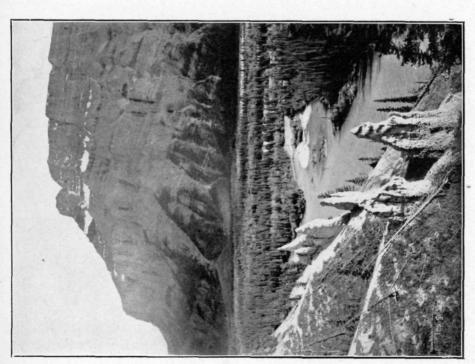
Three miles of the Banff to Laggan coach road were constructed, completing an excellent drive for a distance of about five miles from the railway station, with the exception of a stretch from the track to Stoney Squaw Mountain. I had a wide cut made through the green timber from the road crossing the railway (near the steel Canadian Pacific railway bridge) across block 'C' and the completion of this work will be the first undertaken next season. This new cut necessitated the erection of a new wooden bridge over Forty-Mile Creek. This structure was finished last winter and does away with the old, unsafe bridge which was built further up the creek a number of years ago.

In cutting out this new stretch of road from the track to the mountain, we accumulated a large quantity of green timber and our local saw mill being in the same vicinity I had it sawn into boards and dimension timber. This has supplied us with over 35,000 feet of economical building and bridge timber of the very best quality and will be of great value to us in constructing the new bridges on the Banff to Laggan road.

The Hot Springs, Sundance Canyon, Spray river, Lake Minnewanka, Laggan to Lake Louise, Lake Louise to Moraine Lake, Bankhead to Buffalo Paddock and Canmore station to Mines roads and all town streets were all thoroughly repaired. The Canmore station road is practically an entirely new one.



Aylmer Canyon near Lake Minnewanka, Rocky Mountains Park, 200 to 500 ft. deep.



Hoodoos on Mt. Rundle, Rocky Mountains Park,

At the close of the 1910-1911 season there remained to be finished about one quarter of a mile of road from Lake Louise to Moraine Lake. There was a great deal of very hard and laborious rock work to cut through, and as it was necessary that this road should be completed as early in the spring as possible, I first started a small gang in May and increased the force in June. The road was first put in shape from the station to the Chalet, and then completed to the Lake and was in excellent condition before the tourist season at this point fully opened. It is a most difficult and discouraging undertaking to keep this road in first-class condition. The soil and available material are not fit for road building. It will not build up a good bottom, and the heavy loads continually passing over this thoroughfare cut through the crown, thus making ruts that fill with water which drains from the side-hill. This eventually forms a deep hole of mud, and results in a cut or washout across the road. Culverts would remedy this difficulty if these washouts occurred at the same point every year, but they are always happening in different places. Since the close of the Laggan tourist season the Canadian Pacific Railway Company have hauled seventeen cars of cement over the road from the station to the Chalet and such usage will test even a good road-bed to the utmost. The total amount expended at this point during the year was \$1,645.67.

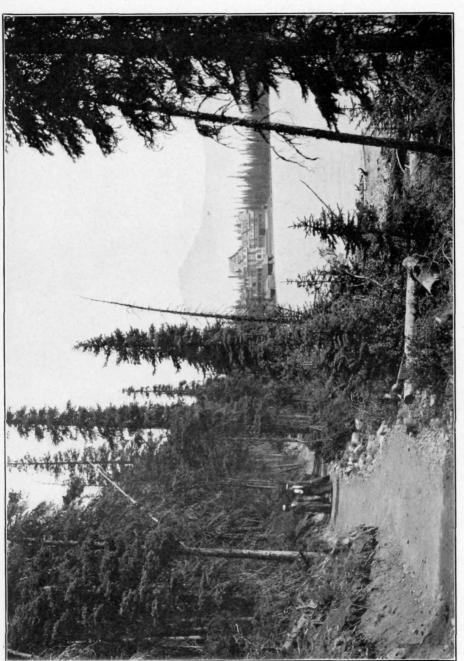
We built eight miles of new road (Banff to Calgary) and it was in fairly good shape during the summer. It has been used a great deal by Calgary autoists, over one hundred and fifty automobiles having made the trip from Calgary to Banff during July, August and September.

A small bridle bridge was built over the Spray river at a cost of \$200. In finishing the cinder paths on Banff Avenue, we had to construct two rustic bridges to span wet places and depressions that it would cost too much to fill. Another bridge of this style was built on Buffalo Avenue, as well as one on Wolf Street.

Since the first of April last, we have built trails to the following points:-

|                                   | Mi.es. | Cost.        |
|-----------------------------------|--------|--------------|
| Sundance Canyon to Brewster Creek | 16     | \$ 350       |
| Laggan to Bow summit              |        | 1,300        |
| Sawback Lakes to Bankhead         |        | 750          |
| Spray Lakes to Mt. Assiniboine    |        | 450          |
| Simpson-Pipestone Trail           |        | 200          |
| Total mileage of new trails       | 98     | \$3,050      |
| TOTAL MILEAGE OF TRAILS IN PARK.  |        | Miles.       |
| Spray to Mt. Assiniboine          |        | 4.004.000.00 |
| Banff to Spray Lakes              |        |              |
| Bow summit                        |        |              |
| Banff to Brewster Creek           |        |              |
| Simpson to Pipestone Trail        |        |              |
| Cascade (Sawback to Bankhead)     |        |              |
| Mt. Edith Trail                   |        |              |
| Lake Minnewanka Trail             |        |              |
| Simpson Pass to Simpson Summit    |        |              |
| Total distance                    |        | 167          |

Every one of these trails has been inspected and our staff of fire and game guardians have been regularly travelling over them during the year, reporting them in excellent condition last fall.



Lake Louise Chalet near Laggan, Alta., Rocky Mountains Park.

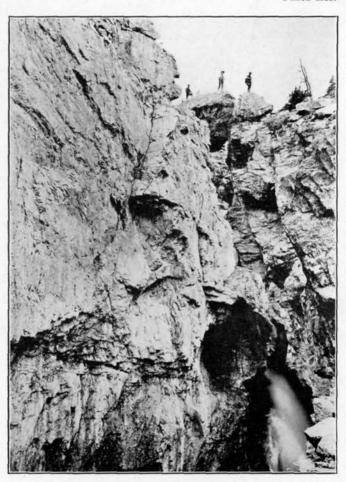
#### SIDEWALKS, CINDER PATHS, ETC.

During the season there were 8,000 lineal feet of six-foot cinder paths completed, and they have proved a great convenience and greatly lessened danger to pedestrians.

#### TELEPHONE SYSTEM.

Most of our expenditure on this account was almost entirely confined to installation, maintenance and salaries. As the town increases in permanent residents, so

PLATE XX.



On Pulpit Peak, Rocky Mountains Park.

do the number of new subscribers increase. The revenue realized is considerably more than that of last year.

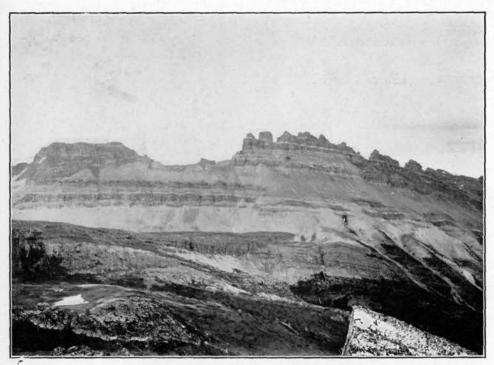
One of the first improvements that impressed me should be made, when I took up my duties here, was the manner of the wiring. When phones were first installed in Banff wire-strung poles perhaps did not present an unsightly appearance; but as the number of subscribers increases so does the number of wires and poles, until at

the present time some of the streets present the appearance of a business thoroughfare, instead of an exclusively residential street, which, strictly speaking, they all are. The extensions of the telephones demand poles, and on some of the most picturesque streets in the town it has been necessary to cut down large trees that were of great value for shade and ornament, to make room for these poles and wires.

In a town of this character and possibilities where improvements undertaken and capital invested by private interests amount to a large total, everything should

be done to make it the most beautiful place in Canada.

PLATE XXI.



Castle Mountain, Rocky Mountains Park.

My suggestion would be to have these poles removed and the wires run underground. There would be less chance of the 'phones getting out of order, the service would be improved, and the improvements to the appearance of the town would be very great.

#### STREETS.

The number of good available lots being so limited it became necessary during the past year to open up the street from Cariboo street to Cemetery, and to extend Muskrat, Beaver, Martin, Moose and Rabbit streets. This has provided a great many available lots, as will be seen by referring to the comparison in caption 'Lots and Buildings.' There has been a great increase in lot applications.

#### LOTS AND BUILDINGS.

In 1910-11 there were fifty applications for Banff townsite lots, but this year there has been a large increase. Since the 1st of April we have accepted 170 new

applications which at a glance will present the satisfactory increase of 120 per cent over last year.

The increase of building has been enormous. The amount according to a conservative estimate totals \$640,100 for the year. This includes the improvements at the Banff Springs Hotel, but not the \$425,000 spent at the Lake Louise Chalet. If this were taken into consideration it would be seen that nearly one million dollars were invested. As an aid to ready reference the following will show the comparison:—

|                               | 1910-11.  | 1911-12.  |
|-------------------------------|-----------|-----------|
| Lot applications (Banff)      | 50        | 170       |
| Lot applications (Minnewanka) | 13        | 8         |
| Lot applications (Canmore)    | 46        | 37        |
| Improvements (Banff)          | \$212,000 | \$640,100 |
| Improvements (Lake Louise)    |           | 425,000   |

PLATE XXII.



From Storm Mountain-Mt. Ball to Mt. Assiniboine.

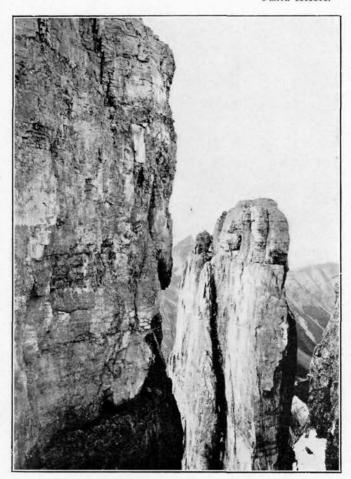
#### WATERWORKS AND SEWER SYSTEM.

On the 31st day of March, 1911, we had 44,930 feet of completed water mains and 13,520 feet of sewer installed and in use, and since that date we have been opening up new streets, which necessitates the extension of both water and sewer mains. This new work amounts to 1,674 feet of water mains and 780 feet of sewer. We circled block number ten from Wolf street to Elk street and from the latter to Wolf on Lynx street. This makes a total of 46,604 feet of water mains and 14,300 feet of sewer at present in use in connection with our water supply and sewer system.

In addition to the extensions we built a large dam and concrete settling tank and rock wing at the intake at Forty Mile creek. Since the old works were erected at this point we have been caused considerable trouble, as they were of poor construction and not at all in conformity with the perfection of the remainder of the system. I had a party engaged on this work up to the time frost prevented a continuance, and will complete the work early this spring before the spring freshets.

The advantage of these improvements will be the elimination of any chance of clogging up the large intake pipe with timber, sticks and gravel, which in the past has been so troublesome as to at times entirely cut off the water supply. Provision has been made so that the flow may be turned from the settling tank and may be

PLATE XXIII.



On Eiffel Mountain, Rocky Mountains Park.

supplied to the town direct. This will allow for the cleaning out of the tank from time to time as necessity may demand. After this work is completed, we will have the most efficient and permanent water works system in the province.

#### AVIARY.

The birds have all done exceedingly well. We lost one North American vulture and one Golden eagle. The last named was fighting with its companion and must have caught its foot in the wire netting as its foot was twisted entirely off. We possess at this time:—

| T                      | otal. |
|------------------------|-------|
| Great horned owl       | 1     |
| North American vulture |       |
| Reeves pheasant        | 1     |
| English ring-neck      |       |
| Golden pheasant        |       |
| Golden eagle           | 1     |
| Silver pheasant        | 3     |
| Lady Amherst           | 1     |
| Bald eagle             |       |
| Osprey                 |       |
| Swainson's hawks       | 2     |
| Canadian wild geese    | 5     |

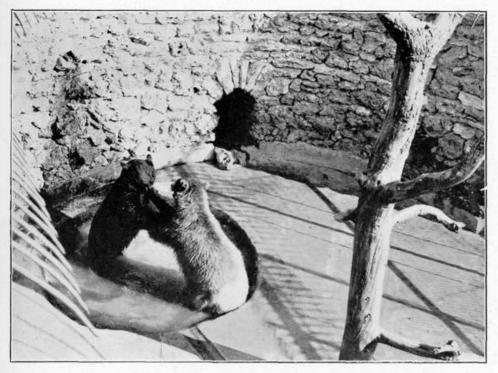
#### ANIMALS.

For a number of years, I understand, endeavours have been made to secure a grizzly bear cub, and I have pleasure in reporting that I have been successful in obtaining two. They were about six weeks old when I purchased them from an Indian, but at this time are large, militant representative specimens of this ferocious species. They are already becoming so powerful that provision must be made this spring to reinforce their cages, or to build entirely new ones. All our animals have done exceedingly well. Under my care there are at present:—

| T                       | otal. |
|-------------------------|-------|
| Mountain gopher         | 2     |
| Guinea pig              | 2     |
| Pine marten             | 2     |
| Mexican orange squirrel | 1     |
| Fox squirrels           | 4     |
| Texas black squirrel    | 2     |
| Beaver                  | 2     |
| Resus monkey            | 2     |
| Kit fox                 | 3     |
| Red fox                 | 2     |
| Lynx                    | 3     |
| Racoon                  | 2     |
| Porcupine               | 3     |
| Marmot                  | 2     |
| Wolverine               | 1     |
| Badger                  | 2     |
| Coyotes                 | 2     |
| Timber wolves           | 3     |
| Mountain lion           | 1     |
| Black bear              | 1     |
| Brown bear              | 1     |
| Cinnamon bear           | 1     |
| Grizzly bear            | 2     |

#### ANIMALS PADDOCK.

All the animals in the enclosure have thrived with the usual exception of the antelope. We shipped all we had of this species to Wainwright, Alberta. Two hybrid buffalo were killed and disposed of this winter, so that we have at present nothing



Bear Cubs in Banff Zoo.

PLATE XXV.



Elk in Banff Paddock.

but pure blood stock. The increase in the buffalo has been three for the season, making a total of twenty-five at this writing. Every animal came through the winter in good condition.

The Rocky Mountain sheep are contented with their surroundings and we should

be proud of the possession of such perfect specimens.

#### HOT SPRINGS SULPHUR BATHS.

With reference to the Sulphur Springs, I can do little more than to urge once more the immediate undertaking of the erection of new bath houses. At the present time there is not sufficient accommodation and the methods of governing are antiquated. Patrons are not satisfied and now that the Banff Springs Hotel have built a very magnificent bath house and plunge, all hand-laid tiling and an excellent example of luxury and convenience, I do not anticipate receiving the patronage next season that we did last. The amount expended on the Canadian Pacific railway's bath alone is \$70,000.

The government provides the water in its most natural state. It requires no artificial heating as the bath houses are located at the source of supply. If our buildings are improved and made adequate to the demands of the public, I am confident we will receive 90 per cent of the patronage as in the past, but without this improvement we cannot expect anything else but a gradual and perhaps immediate falling off in revenue.

In conclusion I desire once again to acknowledge the faithful work done by the employes who have worked under my direction during the past year, as well as the loyal and cordial support given me by the officers and the men of the Royal Northwest Mounted Police in my efforts to maintain law and order within my jurisdiction.

I have the honour to be, sir,

Your obedient servant,

A. B. MACDONALD,

Superintendent of Rocky Mountains Park.

# No. 2 (a).

# REPORT OF THE CURATOR OF BANFF MUSEUM.

Banff, Alberta, April 1, 1912.

The Superintendent of Rocky Mountains Park, Banff, Alta.

Sir,—I have the honour to submit herewith my seventh annual report of the Rocky Mountains Park museum for the year ending March 31, 1912.

The number of visitors to the museum has been more or less steadily increasing not only during the summer, but also during the winter.

PLATE XXVI.



White Dryas, Rocky Mountains Park.

The following additions were made to the exhibits during the past year:— A long-tailed weasel, by purchase.

An American pipit, by self.

An American white pelican, by purchase.

A pair of common red squirrels, by self.

Three eggs of the American bittern, by self.

One egg of the wood duck, presented.

Some fossils from near Crossfield, Alta. Presented by Mr. Ross Peecock.

During the season I made a large collection of insects, devoting early mornings, some evenings and several special days to the work. With duplicates of the specimens collected I was able to repay in some measure those who so kindly helped me to classify specimens.

I have again to thank Dr. L. O. Howard, Chief Entomologist of the Bureau of Entomology, of Washington, D.C., and through him his able specialists, for much assistance in classifying material; also to thank Mr. H. Wolley Dod, of Millarville,

Alta., for his interest in naming specimens of Lepidoptera.

I have kept in view the getting together of a good representative collection of insects for the cabinet, and hope in the near future to be able to make an open exhibit of the more noticeable insects about the park with material now on hand.

A large collection of willows was made and these will be gone over as time allows. Amongst the lot are a few specimens at present not represented in the herbarium.

A second and more complete list of all the exhibits in the museum with added information was made up and sent to Ottawa to replace the original list which was lost in transit. A list of the original lot of birds received by the museum, with all label data was also made up and sent to the Victoria Museum, Ottawa, to be used in checking their own specimens.

I would suggest the getting of more cases, so that the specimens of mammals, &c., may be less crowded and also to allow of increasing the exhibits of mammals,

birds, minerals, &c.

A book case should be provided for pamphlets, &c., and also a map-holder.

I think it would be in the interests of the museum and the park if in some way I were allowed to do some exploring in at present little known parts of the park, for a few weeks each season, in search of new material, photos, &c., say during June or July, in order to extend the interest and usefulness of the present interesting museum, my expenses being allowed for such work.

During the past year much information was given and I find the work increasing more or less yearly. This is my sixteenth year as curator of the museum and during that period I have tramped thousands of miles over prairie land and up mountains (in a given area) in quest of plants, insects, birds, mammals, fossils, rocks and general information, with the idea of getting together what fauna and flora, &c., are to be found about Banff with perhaps an extension of limits.

I have to acknowledge the kind assistance and encouragement given me in my work by those under whom I have had the honour to work and hope for continued

help and encouragement.

I have the honour to be, sir, Your obedient servant,

N. B. SANSON.

Curator Rocky Mountains Park Museum.

Number of visitors at the Museum from April 1, 1911, to March 31, 1912.

| Canada                        | 9,711 |
|-------------------------------|-------|
| Yukon                         | 7     |
| Newfoundland                  | 3     |
| United States                 | 3,932 |
| Hawaiian Islands              | 9     |
| South America                 | 4     |
| Mexico                        | 3     |
| Buenos Ayres                  | 2     |
| Argentine Republic            | 1     |
| England                       | 725   |
| Scotland                      | 211   |
| Ireland                       | 102   |
| Wales                         | 16    |
| Isle of Man                   | 4     |
| Channel Islands               | 1     |
| Australia                     | 92    |
| New South Wales               | 6     |
| Tasmania                      | 3     |
| New Zealand                   | 40    |
| India                         | 19    |
| South Africa                  | 12    |
| Ceylon                        | 5     |
| Bermuda                       | 2     |
| Fiji Islands (Suva)           | 2     |
| British West Indies (Grenada) | 1     |
| Borneo                        | 1     |
| Malay Straits                 | 3     |
| Germany                       | 16    |
| Holland                       | 6     |
| Belgium                       | 8     |
| Netherlands                   | 1     |
| Austria                       | 16    |
| France                        | 14    |
| China                         | 11    |
| Korea                         | 7     |
| Siam                          | 1     |
| Switzerland                   | 12    |
| Italy                         | 9     |
| Russia                        | 6     |
| Finland                       | 2     |
| Spain                         | 5     |
| Japan                         | 3     |
| Sweden                        | 3     |
| Norway                        | 1     |
| Denmark                       | 3     |
| Danish West Indies            | 2     |
| Greece                        | 2     |
| Palestine                     | 2     |
| Turkey                        | 1     |
| Egypt                         | 1     |
|                               |       |

# METEOROLOGICAL TABLES.

Maximum and Minimum Temperatures and the General State of the Weather between April 1, 1911, and March 31, 1912.

| Date    | THERMOMETE          | ER READINGS         |  |
|---------|---------------------|---------------------|--|
| Date,   | Maximum<br>for day. | Minimum<br>for day. | Weather, &c.   |
| 1911.   |                     | 0                   |  |
| April 1 | . 28.2              | 21.8                | Cloudy; blustery; snow; some indifferent sleighing; Bohemia waxwings.  |
| . 2     | . 23.3              | 12.8                | Cloudy; light snow; junco; redpolls; Mt. bluebirds.  |
| . 3     |                     | 4.8                 | Fair; large solar halo; fresh ice on river.  |
| . 4     |                     | 13:7                | Fair; thaws afternoon. Fine day. Flock of Swainson's leuco ticte.  |
| u 5     | . 28.9              | 7:3                 | Fair; fine day and night.  |
| n 6     |                     | 20.2                | Fair; no sleighing.  |
| 7       |                     | 10.8                | Fair.  |
| " 7 ··· | 48.8                | 22.9                | Fair; fine day and night; redpolls; vanessa antiopa butterfly  |
|         |                     | 09.0                | Main road drying.  |
| " 9     |                     | 23.0                | Cloudy; Bow river open above boathouse. Snow flurries.   |
| " 10    |                     | 28.8                | Cloudy; snow storms off and on all day.  |
| " 11    | 30.7                | 19.7                | Cloudy; snow flurries.   |
| 11 12   | 30.0                | 10.8                | Fair; last snowbird; robins plentiful.   |
| " 13    | . 34.9              | 14.8                | Fair; Sandiego redwings.   |
| » 14    |                     | 17:7                | Fair; very fine day.   |
| n 15    |                     | 22.2                | Fair; ground bees.   |
| 11 16   |                     | 39.2                | Cloudy; squally wind; main road dry.   |
| u 17    | . 44.0              | 27:3                | Fair; fine day; snow none to patches. Anemone patens variosa i flower.   |
| 18      | 47.7                | 25.2                | Cloudy; song sparrows.   |
| . 19    | . 53 2              | 34.7                | Fair; very fine day and night; frogs piping; aurora.   |
| n 20    |                     | 25.3                | Fair; perfect day; fine night; aurora. Vanessa Milberti butte fly; various insects.                                      |
| 21      | 63.0                | 28:3                | Fair; very fine day and night; few water insects.  |
| u 22    | . 42.4              | 36.8                | Cloudy; fight rain and snow. Distant terrestrial objects appear quite close and sound very distant. Ruby-crowned kinglet |
| 23      | . 58.7              | 26.6                | Fair; very fine day.   |
| . 24    | 60.5                | 28.5                | Cloudy; very fine day; ruby-crowned kinglets. Flickers.  |
| 25      | . 53.0              | 35.9                | Fair, light rain; thunder.   |
| . 26    | . 49.0              | 26.0                | Fair; very fine day; buffle-head ducks and canvas-back ducks of  |
| 27      | 42.7                | 27.4                | river.<br>Fair ; Audubon's warbler.  |
| · 28    | 49.0                | 27:0                | Cloudy.  |
| 1 29    | 55.3                | 19.9                | Fair; perfect day; Shepherdia Canadensis in flower; bumb   |
| u 30    | 60.9                | $22 \cdot 2$        | bees; tiger beetles, etc., grapta zephynis butterfly; solitaire.   |
| day 1   | 55.0                | 28.4                | Fair; perfect day and fine night. Sweetcoltsfoot in flower. Fair; fine and calm day; wild strawberry in flower.          |
| aay 1   |                     | 25.9                | Cloudy.  |
| 11 3    |                     | 40.5                | Cloudy.  |
| 4       |                     | 42.4                | Fair; very fine day and night.   |
| . 5     |                     | 32.3                | Cloudy; fine day; thunder. Light rain during night.  |
| 6       |                     | 34.8                | Cloudy; gale; thunder.   |
| 7       |                     | 33.5                | Fair; fine day.  |
| . 8     |                     | 29.0                | Cloudy; light rain.  |
| . 9     |                     | 30.3                | Cloudy; swallows.  |
| 10      |                     | 30.3                | Cloudy; primula McCallii in flower.  |
| , 11    |                     | 30.8                | Cloudy; sparrow hawk.  |
| . 12    | 41.9                | 33.9                | Cloudy; rain; aspen poplar leafing.  |
| 13      | . 38.0              | 33.1                | Cloudy; rain and snow.   |
| . 14    | . 57.9              | 32.3                | Fair; very fine day; Audubon's warbler; white-crowned sparrow  |

# MAXIMUM and Minimum Temperatures, &c.—Continued.

|              | THERMOMETE        | ER READINGS.        |   |
|--------------|-------------------|---------------------|---|
| Date.        | Maximum<br>for da | Minimum<br>for day. | Weather, etc.   |
| 1911.        | 0                 | 10                  |   |
| May 15       | 48:0<br>55:8      | 28·3<br>39·9        | Cloudy; rain; heavy dewiall. Cooper's sharpshinned hawk.<br>Large flock Swainson's leucosticte. |
| " 16         |                   |                     | Cloudy, swallows; cowbirds; redwings; wild geese; duck.   |
| n 17<br>n 18 | 51·3<br>57·7      | 41·5<br>37·9        | Cloudy, very squally wind.<br>Fair.   |
| n 18         | 53.4              | 38.7                | Cloudy, aurora; chipping sparrows.  |
| 20           | 58-8              | 29.0                | Fair; fine day and night; ruby-crowned kinglet, kingbirds                                       |
| 21           | 52.1              | 39.3                | American pipit.<br>Cloudy; light rain and snow; white crowned sparrow, juncos.                  |
| 22           | 33.0              | 28.3                | Audubon's warbler,<br>Cloudy; light snow. Townsend's solitaire. Thrushes; chipping              |
| · 23         | 38.0              | 28.2                | sparrows. Cloudy; snow; white-winged scooter on Bow River.                                      |
| 24           | 40.0              | 29.8                | Cloudy; snow flurries; Holbach's grebe on Bow River.  |
| 25           | 46.8              | 28.1                | Cloudy; all birds numerous.   |
| . 26         | 47.2              | 26.3                | Cloudy; light snow; large flycatcher.   |
| n 27         | 48.0              | 26.2                | Cloudy; spotted sandpiper.  |
| " 28         | 59.5              | 24.3                | Fair; very fine day; kingfisher.  |
| 29           | 64.2              | 27.8                | Fair; fine day and night; humming bird z; grouse drumming.                                      |
| n 30         | 69.6              | 35.9                | Fair; very fine day and night.  |
| . 31         | 74.4              | 31.5                | Fair; very fine day and night; rivers rise much.  |
| June 1       | 71.0              | 33.8                | Fair; very fine day and night.  |
| " 2          | 71.3              | 35 2                | Fair; rain with hail; thunder.  |
| n 3          | 59.1              | 38.0                | Fair; fine day and night.   |
| " 4          | 57.0              | 29.3                | Cloudy.   |
| ıı 5         | 59.0              | 31.4                | Cloudy.   |
| , 6,         | 59.3              | 35 2                | Cloudy; light rain; yellow warbler.   |
| » 7          | 44.4              | 36.5                | Cloudy; rain; thunderstorm; mountains obscured by cloud.  |
| · 8          | 60:4              | 37.8                | Cloudy; fine day and night.   |
| # 9          | 60.3              | 44.9                | Cloudy; fine day.   |
| " 10         | 66°2<br>74°0      | 44.2<br>39.0        | Fair; perfect day and very fine warm night.   |
| " 11         |                   | 42.2                | Fair; thunderstorm.   |
| " 12<br>" 13 | 72.4              | 39.0                | Fair; very fine day and night. Fair; thunder with light rain.                                   |
| 11 13        | 69.6              | 39.4                | Fair; fine day; thunder.  |
| . 15         | 73.4              | 37.9                | Fair; very fine day and night.  |
| . 16         |                   | 40.6                | Fair; fine day and night.   |
| n 17         | 74.3              | 38 0                | Fair : very fine day and night.   |
| n 18         | 74.5              | 37:0                | Fair; perfect day.  |
| n 19         | 72.5              | 45.2                | Fair; very fine day; Bow and Spray Rivers very high and very                                    |
|              | Constants         |                     | muddy.  |
| 20           | 66.6              | 39.5                | Fair; fine day.   |
| n 21         | 65.2              | 39.8                | Fair; rain during night.  |
| , 22         | 74.0              | 50.2                | Fair; rain; thunder.  |
| 23           | 65.4              | 38:3                | Cloudy; fine day; rain during night; thunderstorm.  |
| n 24         | 53.3              | 47.2                | Cloudy; rain.   |
| " 25         | 60.6              | 41.2                | Cloudy; fine day.   |
| " 26         |                   | 38:7                | Cloudy; fine day.   |
| " 27         | 58·4<br>68·3      | 50·1<br>49·2        | Cloudy; rain.<br>Cloudy; fine day and night.  |
| " 28<br>" 29 | 69.7              | 41.8                | Fair; rain.   |
| " 29<br>" 30 | 55 1              | 45.8                | Cloudy; rain.   |
| July 1       | 65.8              | 46.9                | Cloudy; rain; very fine complete double rainbow.  |
| " 2          | 57:7              | 48.8                | Cloudy; thunder; rain.  |
| . 3          | 59.3              | 42.7                | Cloudy.   |
| . 4          | 54.3              | 39.9                | Cloudy; rain.   |
| n 5          | 69.4              | 30.5                | Fair; nearly all plants in flower in valley.  |
| 6            | 73.4              | 38.3                | Fair; thunder and lightning; rain.  |
| " 7          | 58.8              | 43.3                | Fair; rain.   |
| и 8          | 59.7              | 39.0                | Cloudy; rain.   |
| . 9          | 60.8              | 45.9                | Cloudy; rain.   |
| " 10         | 65.4              | 42.8                | Fair.   |
| . 11         | 60.9              | 35.8                | Fair.   |
| 26115-4      |                   |                     |   |

# MAXIMUM and Minimum Temperatures, &c.—Continued.

| " 14" " 18" " 19" | 1.                               | 70·1<br>79·3<br>84·0<br>84·3<br>83·5 | Minimum<br>for day. | Weather, &c.  |
|---|----------------------------------|--------------------------------------|---------------------|---|
| July 15  " 14  " 16  " 17  " 18  " 19  " 22  " 22  " 22  " 22  " 22  " 22  " 23  Aug.  " 3  Aug.  | 12<br>13<br>14<br>15<br>16<br>17 | 79·3<br>84·0<br>84·3                 |                     |   |
| " 11" 14" 14" 15" 15" 15" 15" 15" 15" 15" 15" 15" 15  | 13<br>14<br>15<br>16<br>17       | 79·3<br>84·0<br>84·3                 |                     |   |
| " 11" 14" 14" 15" 15" 15" 15" 15" 15" 15" 15" 15" 15  | 13<br>14<br>15<br>16<br>17       | 79·3<br>84·0<br>84·3                 |                     | Fair ; perfect day.   |
| " 18" " 19" | 15<br>16<br>17<br>18             | 84.3                                 |                     | Fair; perfect day.  |
| " 11" 11" 11" 11" 11" 11" 11" 11" 11" 1   | 16<br>17<br>18                   |                                      | 37.8                | Fair; perfect day.  |
| " 15" 18" 19" 22" 22" 22" 22" 22" 22" 22" 22" 22" 2   | 17<br>18                         | 23.0                                 | 42.6<br>44.2        | Fair; very fine day; fine sunset. Fair; very fine day.  |
| " 18" 19" 22" 22" 22" 22" 22" 22" 22" 22" 22" 2   | 18                               | 64.7                                 | 52.1                | Fair; fine day.   |
| " 22" 22" 22" 22" 22" 22" 22" 24" 24" 24  | 19                               | 60.8                                 | 41.9                | Cloudy; rain during night.  |
| " 2' " 2' " 2' " 2' " 2' " 2' " 2' " 3' Aug. "  |                                  | 55.2                                 | 40.7                | Cloudy.   |
| " 2'<br>" 2'<br>" 2'<br>" 2'<br>" 2'<br>" 3'<br>Aug.  | 20                               | 74·4<br>75·5                         | 36·2<br>48·4        | Fair; perfect day.  Fair; very fine day; thunderstorm with light fall of rain; thunder in loud peals. |
| " 2' " 2' " 2' " 2' " 3' " 3' Aug.  | 22                               | 60.0                                 | 44.2                | Cloudy; light rain.   |
| " 20<br>" 20<br>" 21<br>" 22<br>" 30<br>" 31<br>Aug.  | 23                               | 73.5                                 | 37.4                | Fair; very fine day.  |
| " 20<br>" 21<br>" 22<br>" 30<br>" 3<br>Aug. "   | 24<br>25                         | 83·5<br>86·2                         | 42·4<br>42·3        | Fair; very fine day and night. Fair; lightning; very fine but hot day.                                |
| " 2'<br>" 2'<br>" 3'<br>" 3'<br>Aug.  | 26                               | 66.5                                 | 47.5                | Fair.   |
| " 29<br>" 30<br>" 3<br>Aug. "   | 27                               | 68.1                                 | 40.3                | Cloudy.   |
| " 3<br>Aug.   | 28                               | 73.1                                 | 43.8                | Fair; fine day.   |
| Aug.  | 29                               | 68·3<br>65·5                         | 48·9<br>39·3        | Cloudy.   |
| Aug.  | 30<br>31                         | 68.2                                 | 37.0                | Fair; fine day.<br>Cloudy; rain.  |
| 0 3   | 1                                | 64.8                                 | 44.9                | Cloudy; heavy rain during night; fog.   |
|   | 2                                | 62 1                                 | 42.9                | Cloudy; rain.   |
| 0 0   | 3                                | 64 9                                 | 44.9                | Fair; fine day; heavy rain during night.  |
|   | 5                                | 58·4<br>54·9                         | 42·2<br>40·8        | Cloudy ; rain.  |
|   | 6                                | 52.1                                 | 45.5                | Cloudy; light rain.   |
|   | 7                                | 46.3                                 | 43.0                | Cloudy; rain.   |
|   | 8                                | 51 0                                 | 36.4                | Cloudy; rain.   |
| " 1   | 9                                | 64.0                                 | 37.7                | Fair; fine day.   |
| " 1   | 10<br>11                         | 66·6<br>67·4                         | 32·9<br>34·3        | Fair; very fine day. Fair; thunder; shooting stars.   |
| . 1   | 12                               | 69.5                                 | 34.8                | Fair; fine day; thunder; heavy dewfall; shooting stars.   |
| , 1   | 13                               | 67:0                                 | 36.5                | Fair; rain; fine day.   |
|   | 14                               | 70.8                                 | 36.4                | Fair ; lightning ; very fine day.   |
|   | 15<br>16                         | 49·9<br>67·5                         | 37·4<br>35·8        | Cloudy; thunder; rain.<br>Fair; fog; very fine day.   |
| " 1   | 17                               | 73.7                                 | 37.8                | Fair; perfect day.  |
| . 1   | 18                               | 76.2                                 | 32.5                | Fair; perfect day.  |
| " 1   | 19                               | 73 6                                 | 36.2                | Fair ; rain ; thunder and lightning   |
| " 2   | 20                               | 56.8                                 | 39.3                | Cloudy; light rain.   |
| " 2   | $\frac{21}{22}$                  | 57·9<br>57·2                         | 31·7<br>41·3        | Cloudy; light rain.<br>Cloudy.  |
| " 2   | 23                               | 68.2                                 | 30.5                | Fair; perfect day; aurora.  |
| , 2   | 24                               | 70.1                                 | 33.2                | Fair; very fine day.  |
| " 2   | 25                               | 55 0                                 | 41.6                | Cloudy; very heavy rain, for about 4 hours during morning.  |
| " 2   | 26<br>27                         | 56·1<br>68·3                         | 39·1<br>35·9        | Cloudy.  Fair; perfect day and fine night; midges in swarms, but not troublesome.                     |
| . 2   | 28                               | 67:0                                 | 40.8                | Cloudy: very fine night.  |
| " 2   | 29                               | 64.3                                 | 45.1                | Cloudy; fine day.   |
| " 3   | 30 $31$                          | 67:0<br>70:4                         | 48.8                | Fair; fine day. Fair; squally wind but very fine day and fine night.                                  |
| Sept.   | 1                                | 71.5                                 | 38.3                | Fair; very fine day and night.  |
| 11  | 2                                | 71.9                                 | 35.7                | Fair; very fine day and warm night.   |
| "   | 3                                | 53.9                                 | 50.2                | Cloudy; heavy rain.   |
|   | 4                                |                                      | 43·3<br>39·8        | Cloudy.   |
|   | 5<br>6                           |                                      | 35.7                | Cloudy; first snow on mountain tops.  |
|   | 7                                | 56.3                                 | 29.0                | Fair.   |
| **  | 45                               | 60.3                                 | 38.9                | Fair : fine day.  |
| 1   | 8<br>9                           |                                      | 32.0                | Fair; fine day.   |

# MAXIMUM and Minimum Temperatures, &c .- Continued.

| Date.          | THERMOMETE       | ER READINGS.        | Weather, &c.  |
|----------------|------------------|---------------------|---|
|                | Maximum for day. | Minimum<br>for day. | Weather, etc.   |
| 1911.          | . 0              | 0                   |   |
| Sept. 11       | 72.2             | 31.8                | Fair; perfect day and fine night.   |
| " 12           | 72·4<br>56·9     | 32·8<br>46·0        | Fair; perfect day.<br>Cloudy; strong wind.  |
| " 13<br>" 14   | 90.0             | 46.0                | Fair.   |
| 15             | 51.2             | 38.6                | Cloudy; squally wind; rain.   |
| · 16           | 48:3             | 39.7                | Cloudy; squally wind.   |
| " 17           | 51·1<br>51·0     | 38 0<br>35·3        | Cloudy; light rain; fresh snow on mountains.<br>Cloudy; fine day.                       |
| " 18<br>" 19   | 53.2             | 33.2                | Cloudy, fine day.   |
| . 20           | 51.0             | 34.3                | Cloudy; light rain; changing to snow at midnight.                                       |
| 21             | 34.3             | 29 3                | Cloudy; light rain and snow.  |
| n 22           | 31·2<br>35·6     | 26·4<br>25·1        | Cloudy; light snow.<br>Cloudy; light snow; raw day.                                     |
| " 23<br>" 24   | 43.2             | 18.6                | Fair; fine day.   |
| . 25           | 53.5             | 23.2                | Fair; perfect day.  |
| u 26           | 59.4             | 25.0                | Fair; perfect day.  |
| " 27           | 54:3             | 28.2                | Fair.   |
| " 28<br>" 29   | 54·1<br>52·1     | 39·4<br>34·4        | Fair; very fine day. Fair; rain.  |
| 30             | 48.8             | 26.4                | Fair; very fine day.  |
| Oct. 1         | 48.4             | 26.2                | Cloudy; rain and snow.  |
| . 2            | 38.0             | 32.7                | Cloudy; light snow.   |
| " 3            | 47·5<br>47·2     | 32·5<br>28·5        | Fair.<br>Cloudy.  |
| " 4<br>" 5     | 51.0             | 29.2                | Fair; perfect day; leaves blowing off poplars.  |
| . 6            | 53 9             | 34.0                | Fair; a gale; fine warm night.  |
| 7              | 64.5             | 39.2                | Fair; perfect day; fine night.  |
| ıı 8           | 62.4             | 29.8                | Fair; very fine day.  |
| " 9<br>" 10    | 63.5             | 27·6<br>31·8        | Fair; very fine day; fine sunrise. Fair; very fine day; aurora.                         |
| " 11           | 57:3             | 27.3                | Fair; perfect day; fine sunset.   |
| " 12           | 60.8             | 27.2                | Fair; perfect day.  |
| ıı 13          | 56:3             | 31.4                | Cloudy; light rain during night; fine sunrise; lightning 10 p.m.                        |
| " 14<br>" 15   | 47.6<br>52.0     | 39·8<br>35·7        | Cloudy,<br>Fair; a gale; very fine sunrise.   |
| " 16           | 53.3             | 43.6                | Fair; very fine day; strong wind; aurora.   |
| . 17           | 41.0             | 26.8                | Fair.   |
| " 18           | 40.2             | 26.1                | Cloudy.   |
| " 19<br>" 20   | 38·0<br>43·7     | 17·4<br>23·8        | Cloudy; fine sunrise; ponds frozen.<br>Cloudy; snow flurries during night; fine sunset. |
| " 21           | 53.8             | 28.3                | Fair; perfect day; fine sunset; clear night.  |
| 22             | 47.2             | 22.3                | Fair; perfect day; observed comet 6 a.m. in east.                                       |
| 23             | 35.4             | 28:0                | Cloudy; snow flurries.  |
| n 24           | 38·3<br>41·6     | 23.8                | Fair; perfect day. Fair; perfect day; shooting stars; skating in ponds.                 |
| " 25 .<br>" 26 | 41.4             | 6.8                 | Fair : perfect day, shooting stars; skating in ponds.                                   |
| , 27           | 40.5             | 9.0                 | Fair; perfect day; snowbird.  |
| u 28           |                  | 11.0                | Fair; perfect day.  |
| " 29           | 41·3<br>44·0     | 10.0                | Fair; very fine day.  |
| " 30<br>" 31   | 29.2             | 15.8                | Fair; perfect day.<br>Fair.   |
| Nov. 1         | 42.1             | 6.8                 | Fair; perfect day; Bow river frozen to near boathouse.                                  |
| . 2            | 45.8             | 18.9                | Fair; very fine day; very fine sunset.  |
| 3              | 39.4             | 30.9                | Cloudy, fine day  |
| " 4<br>" 5     | 41·4<br>35·2     | 22.1                | Cloudy; fine day.<br>Cloudy; snow flurries.   |
| n 6            | 35.8             | 22.8                | Cloudy.   |
| . 7            | 14.2             | 8.0                 | Cloudy; very squally wind with snow flurries; snow during night                         |
| 8              | 2.3              | -4.2                | Cloudy; about 4 inches of snow on ground; indifferent sle ghing                         |
| 9              | - 8.8<br>6.0     | -16·3<br>-38·0      | Fair; fine day. Fair; coldest day of winter, but fine; clear calm day.                  |
| " 10<br>" 11   | - 8.8            | -37·1               | Fair; mostly calm clear day.  |
| , 12           |                  | -11.4               | Cloudy; snow; blustering afternoon and evening.   |

# MAXIMUM and Minimum Temperatures, &c.—Continued

| Date.         | Тнегмомете          | R READINGS.         | Weather, etc.  |
|---------------|---------------------|---------------------|--|
|               | Maximum<br>for day. | Minimum<br>for day. |  |
| 1911.         | 0                   | 0                   |  |
| " 13          |                     | -17.6               | Cloudy; blustery; large solar halos; light snow.                                       |
| " 14          |                     | -17:1               | Cloudy; snow.  |
| " 15<br>" 16  | 32·8<br>30·0        | 17·8<br>18·8        | Fair; strong wind afternoon. Fair; strong wind late afternoon.                         |
| " 17          | 33.4                | 24.2                | Cloudy; strong wind for 1 hour; Bow and Spray rivers rise.                             |
| , 18          |                     | 31.7                | Cloudy; light rain and snow; strong wind late afternoon.                               |
| 19            | 33.0                | 27 .7               | Cloudy; light snow during night.   |
| . 20          |                     | 22.8                | Fair; fine day; light snow during night; flock grosbeaks.                              |
| 0 21          | 37.3                | 21.8                | Cloudy; fine day.  |
| " 22<br>" 23  | 28·0<br>32·9        | 8.8                 | Fair; fine day. Fair; strong wind morning.   |
| 2i            | 36.9                | 20 7                | Fair; strong coldish wind.   |
| . 25          |                     | 27.8                | Cloudy; snow.  |
| . 26          | 22.3                | 8.9                 | Fair; light snow; sleighing good.  |
| 27            |                     | -13.9               | Fair; fine clear day.  |
| u. 28         | 20.8                | 0.8                 | Fair; very squally; cold wind; a gale; very cold; very fine sur<br>set.                |
| ., 29         |                     | 13.3                | Fair,  |
| 30            |                     | 20.3                | Cloudy; ice on Bow about 11 inches.  |
| Dec. 1<br>" 2 | 39·7<br>33·2        | 29·7<br>15·9        | Cloudy. Fair: perfect day; beautiful moonlight night.                                  |
| " 2<br>" 3    | 31.2                | 16.0                | Fair; very fine day.   |
| . 4           |                     | 12.4                | Fair; perfect day; fine moonlight night.   |
| ·· 5          | 32.7                | 23 4                | Fair; perfect day; fine moonlight night.   |
| 6             | 33.0                | 10.5                | Cloudy; sleighing indifferent,   |
| " 7           | 32.1                | 24 · 2<br>28 · 0    | Cloudy.  |
| " 8<br>" 9    |                     | 26.6                | Fair; fine day.  |
| . 10          |                     | 18.0                | Fair; fine day.  |
| . 11          | 26.0                | 6.0                 | Fair; fine day.  |
| 12            | 30.3                | 22.1                | Fair; fine day.  |
| " 13          |                     | 12·7<br>19·2        | Fair; very fine day. Fair; very fine day.  |
| " 14<br>" 15  |                     | 15.9                | Cloudy; strong wind.   |
| 16            |                     | 9.6                 | Fair ; very fine day ; Lake Minnewanka frozen.   |
| 17            | 13:0                | - 8.3               | Fair; perfect day.   |
| . 18          | 20.8                | 2.9                 | Cloudy; squally wind afternoon.  |
| · 19          | 22·8<br>24·0        | 10 9                | Cloudy; squally; cold wind.  |
| " 20<br>" 21  |                     | - 0.1               | Fair; perfect day. Fair; very cold squally wind.                                       |
| 22            | 36.5                | 16.8                | Cloudy; ice on Bow river 14 in.; squally wind in evening.                              |
| . 23          | 23.8                | 11.8                | Cloudy; snow; Lake Minnewanka ice bearable.  |
| u 24          | 1.9                 | -12.9               | Fair; perfect day; sleighing good.   |
| n 25          |                     | -12.7 $-13.3$       | Fair; very fine day; temperature rises during night. Fair; fine calm day.              |
| " 26<br>" 27  |                     | -11.0               | Cloudy; little snow; very squally cold wind; snow drifting.                            |
| . 28          |                     | -17.4               | Fair; snow flurries; cold and squally wind.  |
| . 29          | 15.2                | -25.7               | Fair; fine calm day; sound very distinct.  |
| u 30          |                     | -28.8               | Fair; perfect day.   |
| 31            | 7.3                 | -26.3               | Fair : Arctic three-toed woodpecker.   |
| 1912.         | 47 H                |                     |  |
| Jan. 1        | 5:8                 | -11.0               | Fair; very fine day; large lunar corona.   |
| n 2           |                     | -25.2               | Fair; very fine day.   |
| n 3           |                     | - 6·0<br>- 8·2      | Fair; very fine moonlight night. Fair; light snow during night.                        |
| . 5           |                     | - 3 2               | Cloudy; clear moonlight night; mock sun.   |
| 11 6          |                     | 31.6                | Fair; clear bright day; ice on Bow 18½ inches.   |
| 9 7           | 15.3                | 18.4                | Cloudy; squally wind.  |
| " 8           |                     | 8.8                 | Fair; cold wind morning; clear sky all day.  |
| . 9           | 14:9                | 23.6                | Cloudy; squally wind; snow flurries; extremely cold day; mod<br>sun; snow during night |

# MAXIMUM and Minimum Temperatures, &c.—Continued.

|                | THERMOMETE          | R READINGS.         |  |
|----------------|---------------------|---------------------|--|
| Date.          |                     |                     | Weather, &c.   |
|                | Maximum<br>for day. | Minimum<br>tor day. |  |
| 1912.          | 0                   | 0                   |  |
| Jan. 10        | 18.8                | 28.8                | Cloudy; light snow.  |
| " II           | 12.2                | 37.6                | Fair.  |
| 12             | 23.2                | 13.2                | Cloudy; squally wind; light snow.  |
| " 13           | 35.8                | 5.8                 | Cloudy; temp. drops 26° in 3 hours afternoon; again rises man degrees by 8 p.m.; ice on Bow 24 in.; cutting ice on Bow; 13 in of snow. |
| 14             | 44.6                | 1.4                 | Cloudy; chinook all day; much snow goes.   |
| ıı 15          | 41.0                | 34.6                | Cloudy; slippery walking; Clarke's crow.   |
| " 16           | 29.2                | 19.7                | Cloudy; snow.  |
| " 17<br>" 18   | 9.2                 | 4 7<br>16·0         | Fair; perfect day. Fair; fine day; squally wind evening; fine sunset.  |
| " 18<br>" 19   | 12.2                | 2.8                 | Fair; strong wind all day.   |
| 20             | 22.6                | 1.1                 | Cloudy; squally wind; cold all day.  |
| 21             | 35.0                | 18.2                | Cloudy; squally wind morning.  |
| 22             | 32.0                | 16.2                | Fair; very fine day.   |
| 23             | 27:1                | 11.3                | Fair; perfect day; fine night.   |
| " 24<br>" 25   | 31·0<br>39·4        | 28.1                | Cloudy; strong wind all day; chickadees.<br>Cloudy; fine mild day; very fine night.  |
| n 26           | 25.3                | 11.8                | Cloudy; alm fine day, very fine mgnt.  |
| . 27           | 32.1                | 15.2                | Cloudy; ice on Bow about 264 inches.   |
| ıı 28          | 31.8                | 12.5                | Cloudy; fine mild night.   |
| n 29           | 42.0                | 26.3                | Cloudy; much snow goes; little snow during night.  |
| ıı 30          | 38.0                | 30·7<br>9·2         | Fair; very fine day.   |
| " 31<br>Feb. 1 | 34.5                | 11.1                | Fair; perfect day.  Fair; perfect day; fine clear moonlight night; very fine sunset.   |
| ,, 2           | 38.2                | 10.5                | Fair; perfect day; fine clear moonlight night.   |
| n 3            | 27.0                | - 1.1               | Fair; perfect day; clear moonlight night; ice as cut on Bow river 2 inches.  |
| . 4            | 25.2                | - 3.3               | Fair; perfect day; clear moonlight night.  |
| n 5            | 35.2                | 3.5                 | Fair ; very large lunar corona.  |
| n 6            | 31.0                | 26.0<br>17.2        | Cloudy,<br>Cloudy.   |
| " 7<br>" 8     | 23·0<br>35·5        | 9.8                 | Cloudy.  |
| " 9            | 36.1                | 23.2                | Fair; fine day.  |
| ,, 10          | 38.8                | 29.0                | Cloudy.  |
| 11             | 37.1                | 24.8                | Fair; fine afternoon; very fine sunset.  |
| " 12           | 34.1                | 18.1                | Fair; very fine day.   |
| " 13<br>" 14   | 36 5<br>38·2        | 21.9                | Cloudy; chinooking; water ousel.<br>  Fair; very fine day; sleighing indifferent; Banff Bonspiel comment                               |
| 14             | 30 2                | 20 0                | cing.  |
| ıı 15          | 35.8                | 31.2                | Cloudy; squally to very squally wind.  |
| ıı 16          | 38.0                | 28.2                | Cloudy; chinooking; fine day.  |
| " 17           | 36.1                | 25.1                | Cloudy.  |
| " 18           | 35.3                | 19.8<br>12.6        | Fair ; very fine day.<br>Fair ; snow flurries.   |
| " 19<br>" 20   | 28·8<br>28·6        | 2.3                 | Fair; fine day.  |
| 21             |                     | 18.4                | Fair.  |
| 22             | 34.0                | 22.0                | Fair; very fine day; fine clear night.   |
| 23             | 33.0                | 1.3                 | Fair; very fine day.   |
| " 24           |                     | 0.8                 | Fair; very fine day; clear night; wheeled vehicles mostly in us  |
| " 25<br>" 26   |                     | 1·7<br>15·2         | Fair; fine day. Fair; light snow mostly during night.  |
| " 26<br>" 27   |                     | 4.9                 | Fair; fine day and night; mock sun.  |
| . 28           | 17.0                | 13.4                | Fair ; perfect day.  |
| 29             | 17.9                | 20.4                | Cloudy : very large solar and lunar halo.  |
| Mar. 1         | 14:3                | 2.2                 | Fair; fine day, very large solar halo.   |
| " 2            | 21.2                | -21·2<br>-13·3      | Fair; perfect day; clear moonlight night. Fair; perfect day.   |
| " 3<br>" 4     |                     | -13.7               | Fair; perfect day; clear night.  |
| u 5            |                     | -12.0               | Fair; perfect day; clear night.  |
| . 6            | 22.9                | - 4.7               | Fair; fine day; clear night.   |
| . 7            | 26.2                | -17:6               | Fair ; perfect day ; clear night; 8 a.m. coldest part of day.  |
| ıı 8           | 39.8                | -14.4               | Fair; perfect day; a range of 54.2 to-day.   |

# MAXIMUM and Minimum Temperatures, &c .- Concluded.

|        | THERMOMETE          | R READINGS.         | W. a  |
|--------|---------------------|---------------------|---|
| Date.  | Maximum<br>for day. | Minimum<br>for day. | Weather, etc.   |
| 1911.  | 0                   | o                   |   |
| Mar. 9 | 39.2                | - 3.8               | Fair ; perfect day ; clear night.   |
| , 10   |                     | - 3.8               | Fair; perfect day; clear night.   |
| n 11   |                     | - 2.1               | Fair; perfect day.  |
| , 12   |                     | - 3.9               | Cloudy; sleighing only on sheltered roads.  |
| . 13   |                     | - 7.9               | Fair.   |
| 14     |                     | - 0.8               | Cloudy.   |
| 15     |                     | 13.8                | Cloudy; fine day,   |
| 16     |                     | 2.3                 | Fair; fine sunrise; ice on Bow River 23½ inches.  |
| 17     |                     | 24.0                | Cloudy; snow during night.  |
| ·· 18  | 20.5                | 13.7                | Cloudy.   |
| 19     |                     | -14.4               | Fair.   |
| 20     |                     | - 8.8               | Fair; perfect day.  |
| 21     |                     | 9.9                 | Fair; large solar halo; no sleighing.   |
| 22     |                     | 18.3                | Fair ; very fine day ; robin heard ; blow-flies about.  |
| 23     | 46.1                | 12.0                | Fair; fine day, fine night; large solar halo; last snowbird seen.   |
| 24     |                     | 18.4                | Fair; very fine day; main road dry in places.   |
| 25     | 46.9                | 29.9                | Cloudy; fine day; light snow; Canada jays building on mountain.   |
| 26     | 46.8                | 23.0                | Fair; very fine day; snow on sheltered roads only; ice on Lake<br>Minnewanka 30 in.; sap oozing on pines. |
| 27     | 50.9                | 27.1                | Fair; main road dry about town; snow in patches; robin singing; very fine day.                            |
| 28     | 47.1                | 36.4                | Cloudy; catkins on some willows and aspen; poplars showing growth.  |
| · 29   | 39.0                | 25.8                | Fair; fine day; large flock redpolls.   |
| 30     | 44.3                | 11.9                | Fair; snow flurries; main road all dry; fine mild night.  |
| u 31   |                     | 29.7                | Fair; very fine day, but squally wind.  |

N. B. SANSON, Observer.

# No. 2 (B).

# VISITORS AT THE PARK.

ANALYSIS OF NATIONALITIES OF VISITORS TO BANFF SPRINGS AND HOTELS.

List of bathers at Upper Hot Springs from April 1, 1911, to March 31, 1912.

| Canada   | 16,703 |
|--|--------|
| United States  | 1.418  |
| Scotland   | 60     |
| England  | 170    |
| Australia  | 28     |
| Ireland  | 11     |
| China.   | 9      |
| Germany  | 8      |
| South Africa   | 3      |
| Ceylon   | 3      |
| South America  | 1      |
| - Country Manager Country Coun |        |
| Total  | 18,414 |
| Resident bathers   | 1,230  |
|  |        |
|  | 19,644 |
|  |        |
| Visitors at Cave and Basin from April 1, 1911, to March 31, 1912   |        |
| Canada   | 5.187  |
| England  | 554    |
| Scotland   | 301    |
| Ireland.   | 62     |
| Australia.   | 65     |
| New Zealand  | 64     |
| South Africa   | 15     |
| India  | 21     |
| Ceylon   | 5      |
| Samoa  | 4      |
| Honolulu   | 6      |
| Fiji Islands   | 3      |
| United States  | 8,462  |
| Argentina  | 7      |
| China  | 15     |
| Japan  | 11     |
| France   | 20     |
| Germany  | 19     |
| Sweden   | 20     |
| Switzerland  | 25     |
| Norway   | 7      |
|  |        |
| Total  | 14,873 |

Number of visitors registered at the Banff Springs Hotel. 14,403 Note of nationalities not available.

Number of visitors registered at the Sanitarium Hotel, Banff, from April 1, 1911, to December 1, 1911.

| (Hotel closed | December | 1, | 1911 | to | March | 31, | 1912.) |  |
|---------------|----------|----|------|----|-------|-----|--------|--|
|---------------|----------|----|------|----|-------|-----|--------|--|

| Canada             | <br>    | 4,300                                   |
|--------------------|---------|---|
| United States      |         | 1,986                                   |
| England            |         | 411                                     |
| Scotland           |         | 109                                     |
| New Zealand        |         | 203                                     |
| China              |         | 19                                      |
| South Africa       |         | 59                                      |
| Australia          |         | 60                                      |
| Japan              |         | 11                                      |
| Denmark            |         | 3                                       |
| India              |         | 1                                       |
|                    |         | 195                                     |
| Ireland            |         | 100000000000000000000000000000000000000 |
| Holland            | <br>    | 19                                      |
| Germany            | <br>    | 58                                      |
| Chili              |         | 3                                       |
| Italy              |         | 20                                      |
| Switzerland        |         | 49                                      |
| Austria            |         | 9                                       |
|                    |         | 90                                      |
| France             |         | 3                                       |
| Phillipine Islands |         | 100                                     |
| Mexico             | <br>• • | 1                                       |
| Total              | -       | 7.617                                   |

Number of visitors registered at the Alberta Hotel from April 1, 1911, to March 31, 1912.

| 5,110 |
|-------|
| 1,19  |
| 300   |
| 190   |
| 175   |
|       |
| 78    |
| 10    |
|       |
|       |
|       |
|       |
|       |

Number of visitors registered at the Grand View Villa from April 1, 1911, to March 31, 1912.

| Canada      |    |   |  |  |     |  |    |     |   |  | ٠. |  |   |  |   |  |  |  |     |  |  |    |  | 3,390 |
|-------------|----|---|--|--|-----|--|----|-----|---|--|----|--|---|--|---|--|--|--|-----|--|--|----|--|-------|
| United Stat | te | s |  |  | . , |  | 74 | • • |   |  |    |  | - |  |   |  |  |  |     |  |  |    |  | 701   |
| England     |    |   |  |  |     |  |    |     |   |  |    |  |   |  | - |  |  |  |     |  |  |    |  | 139   |
| Ireland     |    |   |  |  |     |  |    |     |   |  |    |  |   |  |   |  |  |  |     |  |  |    |  | 79    |
| China       |    |   |  |  |     |  |    |     | 1 |  |    |  |   |  |   |  |  |  | . , |  |  | ٠, |  | 3     |
| Scotland    |    |   |  |  |     |  |    |     |   |  |    |  |   |  |   |  |  |  |     |  |  |    |  | 109   |
| Australia   |    |   |  |  |     |  |    |     |   |  |    |  |   |  |   |  |  |  |     |  |  |    |  | 73    |

|    | France  | 10              |
|----|---|-----------------|
|    | Holland   | 1               |
|    | New Zealand   | 51              |
|    | Austria   | 3               |
|    | Mexico  | 5               |
|    |   |                 |
|    | Total   | 4,564           |
|    | Tumber of visitors registered at the Mount Royal Hotel, 7,963. Tote of nationalities not available. |                 |
|    | Tumber of visitors registered at the Hot Springs Hydropath 1, 1911, to March 31, 1912.              | ic Hotel, from  |
|    | Canada  | 2,001           |
|    | United States   | 507             |
| 27 | England   | 103             |
|    | Scotland  | 90              |
|    | New Zealand   | 15              |
|    | Germany   | 37              |
|    | Australia   | 59              |
|    | Ireland   | 103             |
|    | Austria   | 29              |
| N  | Total   |                 |
|    | to March 31, 1912.  | , from April 1, |
|    | Canada  | 4,202           |
|    | United States   | 1,079           |
|    | England   | 55              |
|    | Scotland  | 19              |
|    | Ireland   | 6               |
|    | Australia   | 16              |
|    | New Zealand   | 8               |
|    | South Africa  | 2               |
|    | Korea   | 4               |
|    | India   | 1               |
|    | Belgium   | 1               |
|    | France  | 2               |
|    | Denmark   | 2               |
|    | Germany   | 4               |
|    |   | 5,401           |
|    | Meals, excursionists  |                 |
|    | Total   | 6,901           |
| N  | number of visitors registered at Homesteed Hotel from April 1                                       |                 |

Number of visitors registered at Homestead Hotel from April 1, 1911, to March 31, 1912. Total, 1,000.

Note of nationalities not available.

Number of visitors at Lake Louise Chalet from April 1, 1911, to March 31, 1912. Total 12,459.

Note of nationalities not available

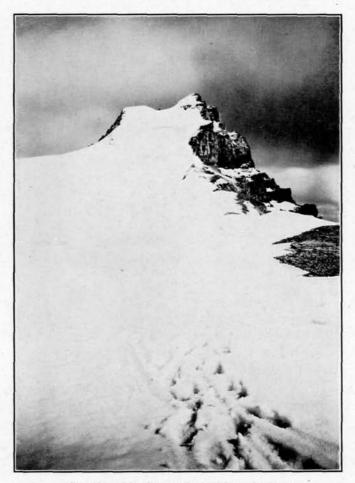
| SUMMARY.                               |            |
|--|------------|
| Banff Springs Hotel                    | <br>14,443 |
| Sanitarium Hotel                       | 7,617      |
| Alberta Hotel                          | 7,834      |
| Grand View Villa                       | <br>4,564  |
| Mount Royal Hotel                      | 7,963      |
| Hot Springs Hydropathic Hotel          | 2,944      |
| King Edward Hotel                      | <br>6,901  |
| Homestead (Temperance Hotel)           | 1,000      |
| Lake Louise Chalet                     | 12,459     |
| Summer cottagers                       | 3,000      |
| Estimated excursionists not registered | 5,000      |
| Total                                  | <br>73,725 |
| Season 1910-11                         | <br>63,494 |
| Increase                               | 10,231     |

#### No. 2C.

#### THE ALPINE CLUB OF CANADA.

The Alpine Club House was open all the season and many tourists who stayed more than a day in Banff found their way to see it and to enjoy the magnificent views from its verandahs. The secretary continues to be the recipient of endless questions concerning the mountain regions, which are answered to the best of his

PLATE XXVII.



Summit of Mt. Hector, Rocky Mountains Park.

ability. In fact, the average traveller seems to regard the Alpine Club House as a bureau to give every kind of information and to receive every possible kind of complaint, whether concerning hotels, packers, railway arrangements, the management of the parks and even the government of the country.

A club party under Mr. Jas. F. Porter, of Chicago, camped for some time in the neighbourhood of Baker Peak, climbing and exploring all the adjoining country. The head of the Red Deer Valley was also explored and camp was then removed to the lower of the two lakes west of Fossil mountain, a miniature Lake Louise. Here Pika Peak and Ptarmigan Peak were attempted and some time spent in the study of the fossils of the neighbourhood, which appeared to be similar to those in the well-known fossil bed on Mt. Stephen. In the course of their wandering several new lakes were discovered. A detailed account of the expedition will appear in the 1912 issue of the Canadian Alpine Journal.

PLATE XXVIII.



Climbing Mt. Abbott, Selkirk Range, Glacier Park.

Another club party, including Mr. L. L. Delafield, of New York, and Mr. L. M. Earle, of Liverpool, England, also a member of the English Alpine Club, climbed in this same neighbourhood and made what are believed to be the first ascents of Mt. Richardson and Pika Peak, and Ptarmigan Peak by a new route.

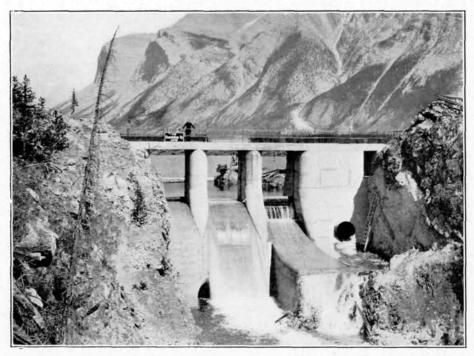
Other independent parties of club members camped in the neighbourhood of Paradise Valley and climbed Mt. Temple, Aberdeen and other adjacent peaks.

The members staying at the Club House were drawn from the following places:-

#### IN CANADA.

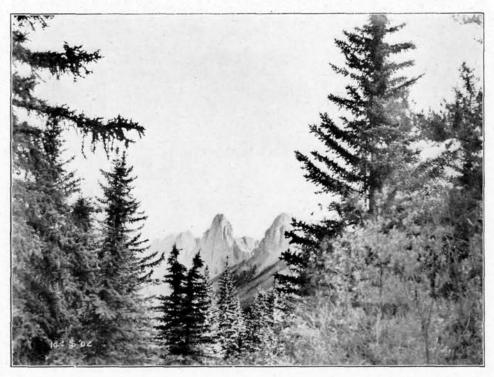
British Columbia.—Alberni, Golden, Keremeos, Sidney, Vancouver, Victoria.

Alberta.—Brant, Calgary, Camrose, Carbon, Cowley, Edmonton, Eyremore, Happy Hill, High River, Leduc, Lethbridge, Nokomis, Strathcona.



Minnewanka Dam, Lake Minnewanka, showing Thimble for Government Power Reservation on lower right.

PLATE XXX.



Sawback Range. Mt. Louis on right, Mt. Edith on left; Rocky Mountains Park.

Saskatchewan.-Prince Albert, Saskatoon, Yorkton.

Manitoba.-Winnipeg.

Ontario.—Brantford, London, Port Colborne, Toronto, Woodstock.

Quebec .- Montreal.

IN THE UNITED STATES OF AMERICA.

California.-Ocean Park.

Indiana.-Lafayette.

Massachusetts.—Boston.

New Jersey .- Summit.

New York.—New York, Rochester.

Pennsylvania.-Bryn Mawr, Philadelphia.

Washington .- Spokane.

OVERSEAS.

England .- London.

Austria.-Vienna.

### No. 2D.

# STATISTICAL SUMMARY OF INFORMATION RE ROADS, TRAILS, SIDE-WALKS, WATER AND SEWER SYSTEMS AT BANFF.

MILEAGE OF ROADS AND TRAILS, ROCKY MOUNTAINS PARK.

| Roads.   | Mi'es.   |
|--|--|
| Kananaskis to Banff.  Banff to Hot Springs.  " to Sundance Canyon. | 3  |
| " to lumber camp on Spray River                                    | 8  |
| Tunnel Mountain Drive  | 9  |
| Banff to Laggan Coach Road   | 3  |
| Lake Louise to Moraine Lake  |  |
| Loop Drive   | 7  |
| Town streets   | The state of the s |
| Total  | 96.5   |
| Trails.  |  |
| Spray to Mt. Assiniboine   |  |
| Bow Summit Trail   | 30   |
| Simpson-Pipestone Trail  | 6  |
| Cascade Trail  | 11   |
| To Lake Minnewanka   |  |
| Total  | 167  |

#### TELEPHONE SYSTEM AT BANFF.

The telephone system at Banff was installed in 1907. It comprised originally 27 miles of lines built at a total cost of \$5,582. Since that date a number of extensions have been made, bringing the number of lines now constructed up to 34\frac{3}{4} miles. This includes the following lines:

| To Bankhead                         | 5 | miles | connecting | 3 | phones. |
|-------------------------------------|---|-------|------------|---|---------|
| To Lake Minnewanka                  | 8 | "     | "          | 3 | "       |
| To the Observatory Sulphur Mountain | 4 | "     | "          | 1 | "       |
| To Upper Hot Springs                | 3 | "     | **         | 1 | "       |
| To Hydropathic Hotel                | 3 | "     | "          | 1 | "       |
| To Grand View Villa and Alpine Club |   |       | "          | 2 | "       |
| To Cave and Basin                   | 1 | "     | "          | 1 | "       |

Business phones, 35. Private phones, 19.

The Banff system is also connected with the Alberta long distance system.

# SUMMARY OF WATER MAINS.

# Town.

| Street.                                 | Mains. | Hydrants. | Valves. |
|---|--------|-----------|---------|
|   | Ft.    | No.       | No.     |
| Banff Ave                               | 4.800  | 11        | 11      |
| Beaver.                                 | 1.700  | 5         | 3       |
| Auskrat                                 | 1,475  | 3         | 2       |
| Otter                                   | 1,475  | 3         | 2       |
| Bear                                    | 1,475  | 3         | 2       |
| Buffalo                                 | 1,400  | 9         | 5       |
| Sariboo                                 | 1,475  | 4         | 7       |
| ynx                                     | 1,300  |           | 4       |
|   | 650    | 9         | 9       |
| quirrel                                 | 325    | 1         | -       |
| *************************************** | 600    | 1         |         |
| darten                                  |        | 1         | 1 0     |
| Volf                                    | 1,850  | 6         | 8       |
| Totals                                  | 18,525 | 46        | 47      |

# Villa.

| Avenue.    | Mains.           | Hydrants. | Valves. |
|------------|------------------|-----------|---------|
|            | Ft.              | No.       | No.     |
| CaveSpray. | $1,200 \\ 2,925$ | 2 7       | 47      |
| Totals     | 4,125            | 9         | 11      |

# SUMMARY OF SEWERS.

# Town.

| Street.   | Mains. | Manholes. |
|-----------|--------|-----------|
|           | Ft.    | No.       |
| Banff Ave | 1,400  | 5         |
| Beaver    | 1,400  | 6         |
| Iuskrat   | 1,650  | 7         |
| Otter     | 1,400  | 3         |
| Bear      | 1.050  | 5         |
| Buffalo   | 1,400  |           |
| ariboo    | 1,575  | 3         |
| ynx       | 825    | 3         |
| quirrel   | 675    | 2         |
| farten    | 600    | 3         |
| Volf      | 175    |           |
| Totals.   | 12.150 | 37        |

# Villa.

| Avenue.  | Mains. | Manholes. |
|--|--------|-----------|
|  | Ft.    | No.       |
| River -From point opposite Sanitarium Hotel to Manhole where trunk sewer crossed Bow River | 500    | 1         |
| above Falls  | 1,450  | 6         |
| Total  | 1,950  | 7         |

# STATEMENT OF CINDER WALKS CONSTRUCTED.

# Town.

| Street.  | From      | To.              | Side.         | Length.                | Width. |
|----------|-----------|------------------|---------------|------------------------|--------|
|          |           |                  |               | Feet.                  | Feet.  |
| Otter    | . Buffalo | Wolf             | East          | 1,344                  | 6      |
| tter     | . Cariboo | Wolf             | West,         | 600                    | 6      |
| Iuskrat  | . Buttalo | Wolf             | West          | 1,344                  | 6      |
| eaver    |           | Wolf             | East and West | 2,688                  | 6      |
| uffalo   |           | Otter            |               | 1,216                  | 6      |
| ear      |           | Cariboo          |               | 725                    | 45     |
| ear      |           | Wolf             |               | 600                    | 41/2   |
| ynx      |           | C. P. R. Station |               | 1,800                  | 6      |
| quirrel  |           | Elk              |               | 627                    | 41/2   |
| anff Ave | . Cariboo | Buffalo Paddock  | North-west    | $1\frac{1}{2}$ miles   | 6      |
| Total    |           |                  |               | 3 miles,<br>1,008 yds. |        |

# Villa.

| Avenue. | From.      | To.                              | Side.        | Length.                | Width.    |
|---------|------------|----------------------------------|--------------|------------------------|-----------|
| Cave    | Bow Bridge | Cave and Basin<br>C. P. R. Hotel | East<br>East | Feet. 1 mile 3,600 ft. | Feet. 6 6 |
|         |            |                                  |              | 1 mile,<br>1,200 yds.  |           |

#### STATEMENT OF PLANK WALKS.

| Avenue or Street.                      | From.     | To.                  | Side.                  | Length.                    | Width.           |
|--|-----------|----------------------|------------------------|----------------------------|------------------|
| Banff<br>Cariboo<br>Banff Ave<br>Total | Banff Ave | Beaver St Bow Bridge | South<br>East and West | Feet. 600 260 700 320 yds. | Feet. 6 44 45 45 |

#### STATEMENT OF CEMENT WALKS.

| Avenue or Street. | From.   | To.  | Side.         | Length.                    | Width. |
|-------------------|---------|------|---------------|----------------------------|--------|
| Banff             | Buffalo | Wolf | East and West | Feet.<br>1,425<br>475 yds. | Feet.  |

#### No. 3.

#### REPORT OF THE SUPERINTENDENT OF YOHO AND GLACIER PARKS.

FIELD, B.C., April 1, 1912.

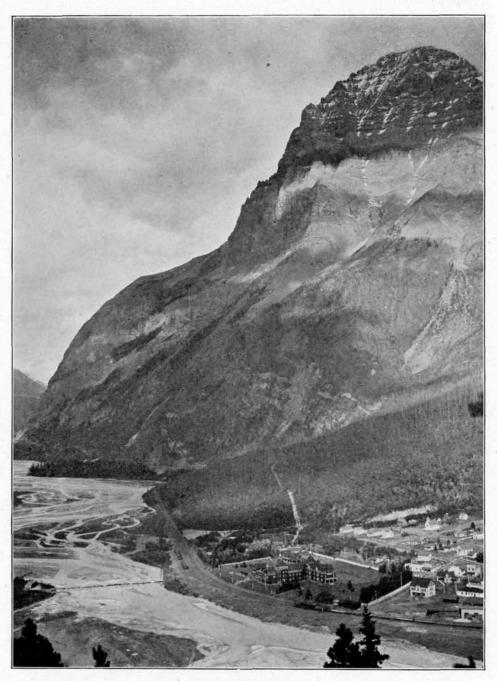
The Chief Superintendent of Dominion Parks, Edmonton, Alta.

Sm,—I have the honour to submit herewith my third annual report as Superintendent of the Yoho and Glacier parks for the fiscal year ending March 31, 1912.

#### YOHO PARK.

The spring of 1911 brought with it the need of the usual amount of repairs to roads, bridges and trails. All roads were raked clear of stones, the ditches cleaned out and the culverts repaired. Each bridge was inspected and repaired wherever necessary. The trails were gone over and cleared of fallen timber and boulders. The streets in the town of Field were raked; the sidewalks were repaired and any trees planted during the previous year which were found dead were replaced with others of the proper size.

A tool-shed and stable combined was erected on Lot No. 4, in Block 1, Field Townsite, thus providing stable room for the horses of the Superintendent and Fire warden as well as a storage for tools, material, &c., used in connection with construction work in the Yoho park.



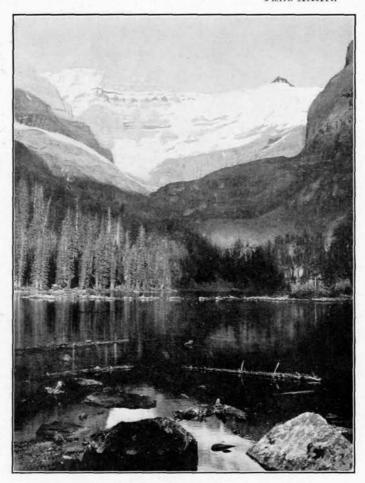
Field, B.C., Yoho Park.

The small bridges in the vicinity of Field, nine in number, were railed on each side with peeled poles, adding to their appearance as well as to the safety of the traveller.

One dozen additional rustic seats were placed at different points along the Yoho Valley and Emerald lake drives. The material used in the construction of these seats as well as that used in the construction of all railing was peeled and painted.

A carriage road was built connecting the Natural Bridge with the Emerald lake drive at a point near the three-mile post, a distance of three-quarters of a mile, thus

PLATE XXXII.



Lake O'Hara, Yoho Park.

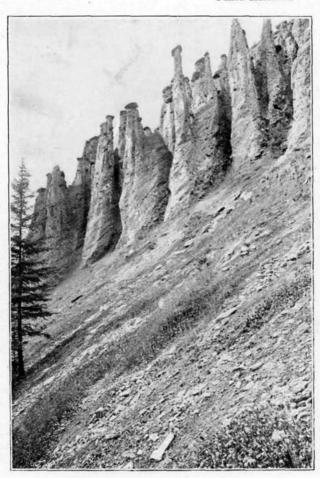
completing a return drive, leaving the last named at the two-mile post, passing the bridge and again meeting the Emerald lake drive as above stated at the three-mile post.

The work of railing the Natural Bridge was continued from last year and fifty yards of heavy railing were added to it and to the steep embankment in the immediate vicinity. The foot paths in close proximity to the bridge were gravelled and rustic seats were placed at different points where the scenery appeared most grand.

I would respectfully suggest that a small pavilion be erected at this point in the near future for the reason that it is fast becoming a popular place for pic-nickers. I might add that the Canadian Pacific Railway Company saw the need some years ago of a building of this kind here and had a rustic shelter erected. This has, however, become entirely inadequate.

A trail was constructed from the Natural Bridge to a canyon some distance down the Kicking Horse river, the beauty of which equals, if it does not surpass, that of the Natural Bridge itself. Railing was also placed along this canyon so that it may now be approached with safety.

PLATE XXXIII.



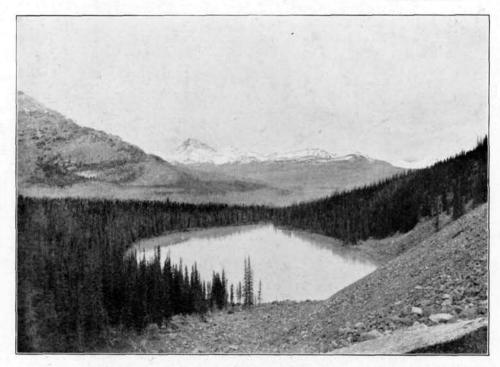
Hoodoos in Hoodoo Valley, Yoho Park.

Starting at a point on the Yoho Valley drive, an approximate distance of three and one-half miles from Field a carriage road was built to connect with the old grade of the Canadian Pacific railway which was abandoned by the company upon the completion of the spiral tunnels, along which road three hundred and fifty yards of railing were placed. The said grade was converted into a carriage road by removing the old railway ties as well as from six to eight inches of surface composed of a soft material. A considerable amount of work was also necessary to obtain a crossing over

the new railway grade at Yoho station which was done by hauling in rock and the above mentioned soft material taken from the road surface. The bridges on this grade, four in number, were covered with three-inch planks and railed on each side. This completed a drive road from Field to within a few minutes' walk of Lake Wapta, an approximate distance of eight miles.

This road should, in my opinion, be continued next year to Stephen, the eastern boundary of the Yoho park, and I would also respectfully suggest that funds be provided in the appropriation for Rocky Mountains park to make the connection from this point to Laggan station; thus connecting, when the Banff-Laggan road has been

PLATE XXXIV.



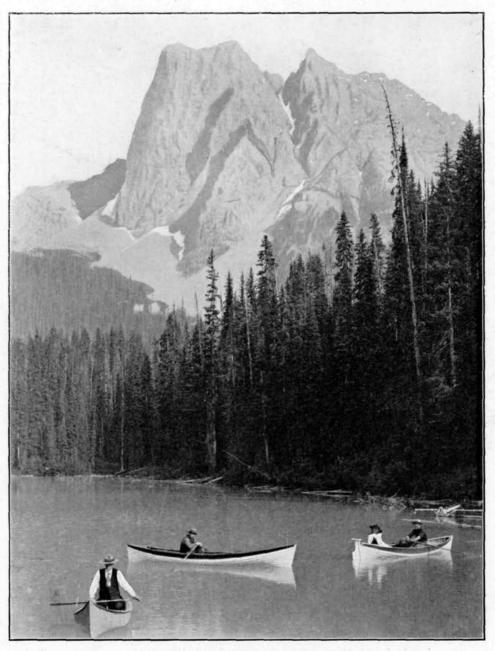
Ross Lake, Yoho Park.

completed, the three principal tourist points in the Rocky Mountain range and also allowing Field access to the Banff-Windermere and Banff-Calgary motor roads.

The Yoho Valley carriage road was continued to a point about three and one-half miles beyond the Takakkaw Falls. This completed approximately sixteen miles of this road all of which is in excellent condition for carriages. I may say here that this carriage road is, I think, at present of sufficient length for one day's drive and until such time as proper stopping places are provided in the valley I would recommend that new work in this connection be suspended.

A trail was built from Hector station on the line of the Canadian Pacific Railway to a meadow at the end of Sherbrooke lake, a distance of four and a half miles, at which point the Alpine Club of Canada held their sixth annual camp.

The completion of these roads and trails has made accessible those points of particular natural beauty which are bound to become more and more popular as they



Emerald Lake and Mt. Burgess, Yoho Park.

become better known. I furnish below a partial list of the different points of interest in Yoho Park with their approximate distance from Field:—

|                             | Miles.         |
|-----------------------------|----------------|
| Fossil Beds                 | 11             |
| Natural Bridge              | $2\frac{1}{2}$ |
| Natural Bridge Canyon       | $2\frac{3}{4}$ |
| Mt. Stephen Glacier         | 3              |
| Summit Lake                 | 3              |
| Emerald Lake                | 7              |
| Takakkaw Falls              | 12             |
| Laughing Falls              | 161            |
| Twin Falls                  | 18             |
| Yoho Glacier                | 18             |
| Lake O'Hara (from Hector)   |                |
| Lake McArthur (from Hector) | 9              |

I hope that the regulations governing other Dominion Parks will, in the near future, be made to apply to Yoho Park and thus provide a system of game protection worthy of this park, the natural breeding ground for almost every species of large game native to the Rockies.

Some system of drainage should be provided for the village of Field which could be installed at a comparatively small cost. Already the Canadian Pacific Railway Company have installed a water system for supplying their hotels and shops from which many of the residents have been allowed to take their supply. Considering this fact it follows that a much larger quantity will be used than if taken from a well and proper drainage will be rendered impossible without installation of a sewerage system.

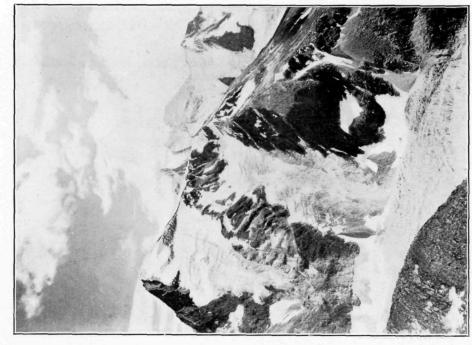
I would again respectfully suggest that the old wooden bridge over the Kicking Horse at Field be replaced next year by a steel bridge of ample width with provision for foot passengers.

#### THE ALPINE CLUB OF CANADA.

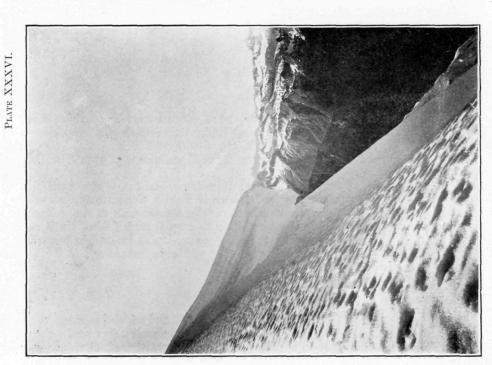
Of the six annual camps held by this club, three of this number have been held within the limits of the Yoho Park which speaks well for this region as an interesting ground for the mountaineer of some experience who glories in a 'good stiff climb.' With your permission I should like to incorporate in this report an extract from a report prepared by the secretary treasurer of the Alpine Club of Canada, which reads as follows:—

'The Alpine Club of Canada continued its work of bringing the mountain regions of the country to the notice of the people of Canada and of other nations. The Annual Camp was held in the meadow above Sherbrooke lake in the Yoho Park. The new trail to the lake, recommended by the superintendent, and constructed in the early part of last year was much appreciated and will render future access to one of the most charming spots in the mountains easy and pleasant. A subsidiary camp was placed at Ross Lake to facilitate the ascent of Pope's Peak, a most interesting climb for mountaineers of some experience. The lake is easily reached both from the Laggan-Hector trail and the railway. It is about three miles distant from Hector station.

'One hundred and fifty-four people were placed under canvas and the majority of them stayed for the life of the camp. A synopsis of places represented by provinces, states and countries is here given.



From Geikie Glacier, Glacier Park.



From Hermit Mountain, Glacier Park.

#### 'IN CANADA.

'British Columbia: Alberni Chilliwack, Golden, Nanaimo, Revelstoke, Sidney, Vancouver and Victoria.

Alberta: Banff, Brant, Calgary, Carbon, Cowley, Evarts, Eyemore, Fernie, High River, Lethbridge, Macleod, Nokomis and Okotoks.

Saskatchewan: Prince Albert and Regina.

Manitoba: Brandon and Winnipeg.

Ontario: Toronto and Woodstock.

#### IN THE UNITED STATES OF AMERICA.

'California: Ocean Park.

Illinois: Galesburg.

Massachusetts: Boston.

New Jersey: Summit.

New York: Brooklyn and New York.

Ohio: Dayton.

Oregon: Portland.

Pennsylvania: Gladwyne, Glen Olden and Philadelphia.

Washington: Seattle and Spokane.

#### OVERSEAS.

'England: London and Bude.

Switzerland: Berne, Grindelwald, Interlaken and Zurich.

'The following Mountaineering Clubs were represented: The Alpine Club (England), the American Alpine Club, the Swiss Alpine Club, the Appalachian Mountain Club, the Mazamas, the Mountaineers.

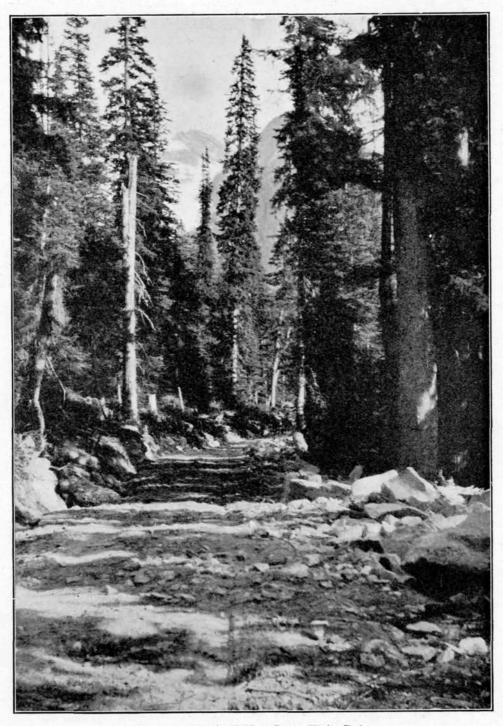
'Sixty-eight passed the graduation test for full membership upon Mt. Daly

and Pope's Peak.

. 'The Government of British Columbia in response to the Club's invitation delegated Mr. W. W. Foster, the Deputy-Minister of Public Works, to represent it in Camp. He expressed the great appreciation of his Government of the publicity work already done by the Club, and its ambition to open further fields. Until one, he said, had actually lived in the camp for a day or so, it was impossible to realize the enthusiasm and widespreading influence of a wonderful organization.'

#### SILVER-LEAD MINE,

The Monarch Mine which was first operated in 1882, and which has many times since that date been closed and opened by different companies, has again shown signs of life and now bids fair to become one of the largest silver-lead mines operating in British Columbia. A concentrator has been built in the immediate vicinity



On the way to the Nakimu Caves, Glacier Park.

of the mine so that the ore may be separated before shipment to the smelter. Located as it is on the almost perpendicular face of Mt. Stephen, approximately twelve hundred feet above the railway, it is, I think, one of the most interesting sights in this locality.

### GLACIER PARK.

About four miles of the proposed carriage road from Glacier to the Nakimu Caves were completed during the year. In the construction of this portion of the drive a bear-den slide was encountered, which could not be seen at the time that I estimated the cost of its construction, which resulted in retarding progress to some extent and the completion of one mile less than the entire distance estimated in my last annual report. Enough has been completed, however, to make an excellent drive winding as it does well above the famous loop of the Canadian Pacific Railway in plain view of the great and other smaller glaciers. I hope the Government will undertake during the next fiscal year the continuation of this drive to a point in the Cougar Valley immediately below the Caves from which point a suitable trail, with rustic steps where the incline is very steep could be constructed at a very small cost to allow access to the Caves.

A tool-shed was erected on this drive, a short distance from Glacier Station, for the storage of tools, material, &c., purchased in connection with construction work in this park.

Some repair work was done in the interior of the Caves in the way of strengthening the walks and adding hand railing wherever it was considered necessary.

The trail leading from the Glacier House to the Caves thence to Rogers Pass was cleared of fallen timber and mud slides.

In conclusion I desire to acknowledge the faithful work done by the foreman who worked under my direction during the last year.

I am, sir,

Your obedient servant.

G. E. HUNTER,

Superintendent.

# MILEAGE OF ROADS AND TRAILS IN YOHO PARK.

# Roads. Yoho Valley Drive. 16 Hector Drive. 5 Emerald Lake Drive. 7 Branch Drive to Natural Bridge and return. 1½ Ottertail Drive. 6 Total. 35½

# Trails.

| M  | liles. |
|--|--------|
| From Field over Burgess Pass to end of Yoho Valley and |        |
| return   | 25     |
| Hector Station to Sherbrooke Lake                      | 5      |
| Hector Station to Lake O'Hara and Lake McArthur        | 10     |
| From Emerald Lake Road to the Amiskwi river to the N.  |        |
| boundary of the old park                               | 25     |
| Ottertail Drive to Leanchoil                           | 9      |
| Leanchoil to southern boundary                         | 20     |
|  | 5      |
| Branch trail to Fish Lake                              | 6      |
| Hector Station to Stephen                              |        |
| Total  | 57     |

# No. 4.

# REPORT OF THE SUPERINTENDENT OF BUFFALO PARK.

WAINWRIGHT, ALBERTA, April 1, 1912.

Howard Douglas, Esq., Chief Supt., Dominion Parks, Edmonton, Alta.

Sir,—I beg to submit for your consideration my second annual report as Superintendent of Buffalo Park for the fiscal year ending March 31, 1912.

Owing to the almost continuous rains during the past summer and the difficulty which we had in securing teams and equipment at the proper time, the work in the park was not carried on as we would have liked.

The evergreen trees set out along the drive to the park and around the different grounds last year are thriving very well, though naturally with this class of trees the growth is very slow. A man was kept continually cutting weeds and cultivating around these trees during the early part of the summer.

The grounds around the superintendent's house were broken up and thoroughly cultivated for the purpose of planting with shrubs and grasses in accordance with a plan prepared by Norman M. Ross, of the Forestry Branch of the Interior Department.

The cottage and barn erected at the winter-quarters last spring have added greatly to the appearance of the place and are very much appreciated by the men stationed there. The old shack was moved and rebuilt and is being used at the present time as a bunk house by the teamsters and extra men, and the old stables were over-hauled and are used for a storehouse for machinery and implements. I had a well sunk convenient to these new buildings which furnished an ample supply of water for both places.

The telephone line was extended to connect with the Hardisty entrance to the park and has been of great service on more than one occasion.

Under instructions from your office I had a corral built for the purpose of coralling and crating buffalo or any other animals we may have to ship from here to other parks. This corral was located in the small enclosure adjacent to Wainwright.

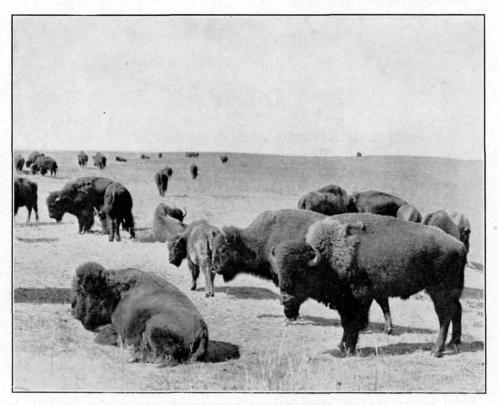
The water in the first well sunk at headquarters not being good we had to sink another one, and to get the supply needed we had to go to the foot of the hill on

which the house is situated. As this was some four hundred and fifty feet from the house it was found necessary to instal an engine and pump to force the water up to

the house and grounds. This has worked out very satisfactorily.

During the latter part of June and the first part of July the one hundred and seventy miles of fire-guard around and across the park were all thoroughly cultivated, but owing to so much rain the weeds grew very fast and before fall we had to plough over a large portion of the guards to make the park safe from fire. Fortunately they were not needed, as we had not a prairie fire in the neighbourhood of the park last fall. Since it takes a great deal of time to work over the guards into any kind of decent shape with the discs, I have decided that in the future it will pay

PLATE XXXIX.



Buffalo Herd in Buffalo Park, Wainwright, Alta.

better to plough and drag the guard each year, as this can be done as cheaply and will

make a more satisfactory job of it.

We were rather unfortunate in our hay-making during the past season, as owing to so much rain and the boggy nature of our meadow it was almost impossible to make hay at all, and though the ditches put through the meadow a year ago were quite sufficient to carry off the water in an ordinary year, they proved entirely useless last season so that where we should have got eight hundred tons of hay, we only got about three hundred and fifty. If it had not been that we carried over some eight hundred tons of old hay from the year before we would have been up against it this winter. To guard against this I would suggest that as early as possible next spring we break up about three hundred acres and crop it with oats to be used as feed for the animals,

and then any year that we get a good supply of hay from our meadow we can thresh our oats and have our seed and feed for the year following.

### ANIMALS IN THE PARK.

My last report showed something over 800 buffalo in the park. With a couple of small shipments from Montana and the natural increase for the year we have now close to a thousand head, all in a thriving and healthy condition. The increase for the year (172) is very gratifying, with a very small loss, 9 head. This loss has been mostly old bulls, which no doubt have been killed off by the younger bulls during the season when their hide is of no value. If the suggestions made in my last year's report were adhered to and a number of these killed off in the fall when they were in their best fur

PLATE XL.



In Buffalo Park, Wainwright, Alta.

it would save considerable in feed, besides, their robes would be worth something where now they are a total loss.

The moose imported last year have done very well; as they were only yearlings there was of course no increase.

The elk have done very well. With a shipment of seven head from Montana and a natural increase of four we have now eighteen head, all in beautiful condition.

The wild deer enclosed when the park was fenced evidently have increased as one of the riders saw twenty-five in one bunch last fall. I would estimate at least fifty head in the park now.

Among the antelope I can report no natural increase though we have now fourteen head, having shipped in what they had left at Banff, besides a shipment of eight head from Brooks station on the C.P.R.

The animals now in the park are as follows: Buffalo, 994, increase this year, 172, loss, 9; moose 11; elk 18, increase 4; deer, estimated, 50; antelope 14.

# VISITORS TO THE PARK.

Last year I reported some eighteen hundred people having visited the park; this record has been exceeded already this year by nearly three hundred, the gate-keeper's diary showing 2,087 persons having passed through the gate in the past nine months. Several of these have been heard to express their delight at finding such a vast herd of wild animals in such natural surroundings.

The feathered game, evidently aware that they are protected, are gathering into the park in great numbers, and the country immediately surrounding the park has

already proved a mecca for the sportsman.

Even the coyote, the most miserable of all animals, finding a certain amount of protection within the confines of the high wire fence is becoming a nuisance and a menace to the birds and small game, and I think it would be desirable to offer a bounty for his destruction.

In conclusion I am pleased to be able to state that there have been no infractions of the Park Regulations during the past year.

I am, sir,

Your obedient servant,

EDWARD ELLIS,

Superintendent.

# No. 5.

# REPORT OF THE SUPERINTENDENT OF ELK ISLAND PARK.

ELK ISLAND PARK, LAMONT, ALBERTA, April 1, 1912.

Howard Douglas, Esq., Chief Superintendent Dominion Parks, Edmonton, Alta.

SIR,—I have the honour to submit my second annual report as Superintendent of Elk Island Park.

Owing to the exceptionally fine weather the buffalo left their winter quarters early last spring and were able to range out from the first week in March, thereby

enabling us to carry over about forty tons of hay.

In my last report I mentioned having the material placed on the ground for the erection of a fence across the park, which would keep the buffalo on the open land. As soon as the frost was out of the ground last spring, three miles of fence were built along the lake shore and connected with the main fence on the south and west sides. This enclosure forms an extensive pasture for both the buffalo and moose and I am pleased to state that they have done well during the past year, and can always be seen by visitors.

The increase in buffalo numbered thirteen, with no loss. A cow, which had become disabled, was shot about the first of December, when her fur was in excellent condi-

tion and was disposed of according to instructions.

Last summer two moose calves were brought to the park and raised by hand until they were old enough to run at large. Later nine moose were shipped in from Banff and since the New Year three which were secured at Lesser Slave Lake, have been added to the number, making a total of fourteen. As stated above these are in the same pasture as the buffalo.

Last spring, after the hills had become bare, with still enough snow in the bush to prevent danger, a fire-guard was burned the whole way round the park and in this way fire was prevented from getting into the enclosure as it had done other years.

Early last fall a mile of fire-guard was ploughed along the west side. This had been ploughed before and makes about four miles of a fire-guard protecting the pasture and winter feed.

During the winter the grounds between the superintendent's house and the lake were cleared of all dead trees and brush, adding greatly to the appearance of the place.

The elk and deer and also what moose were in the park previous to 1911 are running at large in the timbered part of the park and when on my tours of inspection through this area I often see them. Last spring I counted seven young elk, which shows that the increase is satisfactory. The estimated number of elk at the present time is thirty-five and deer about forty-five.

The visitors for the year numbered nine hundred and ninety-eight, which was a decrease, but I might add that this was owing to such wet weather and to the bad roads during the summer. It would be well if the Provincial Government of Alberta would do something towards the improvement of the roads in the vicinity of the park.

The number of animals in the park at the present time is as follows: -

| Buffalo         |       |   | <br> | <br>60  |
|-----------------|-------|---|------|---------|
| Moose           |       |   | <br> | <br>19  |
| Elk, estimated  |       |   | <br> | <br>35  |
| Deer, estimated |       |   | <br> | <br>45  |
|                 | Total | l | <br> | <br>159 |

In conclusion I wish to express my appreciation of the valuable support received from yourself and other officials in connection with the parks in enabling me to carry out my work.

Your obedient servant,

# ARCHIBALD COXFORD,

Superintendent Elk Island Park.

## No. 6.

# REPORT OF THE SUPERINTENDENT OF WATERTON LAKE PARK.

WATERTON MILLS, ALBERTA, April 1, 1912.

The Chief Superintendent of Dominion Parks, Edmonton, Alta.

SIR,—I have the honour to submit this my annual report in matters pertaining to the Waterton Lake Park.

In writing of the park it is rather difficult to know just how much land and water there is within its boundaries. In the latter part of July, 1911, we learned of the reduction of its area, all the lakes and several of the mountains of great interest being cut out, a matter of much regret and a step extremely unpopular with the people of Southern Alberta.

It was hoped that instead of a reduction there would be an enlargement of this natural game breeding ground which adjoined the U. S. Glacier Park on which 26115—6

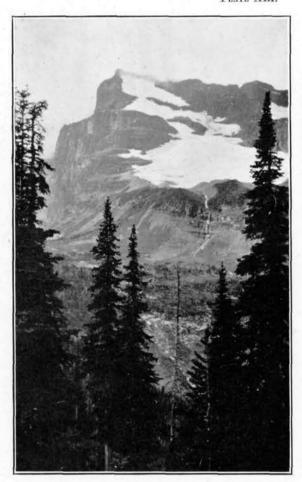
thousands of dollars are being expended, miles of good roads built and even Swiss cottages put up in desirable places for the use of tourists, 40,000 of whom are expected next summer.

It is scarcely necessary to revert to the large sums that people of this class spend in their outings, beside their probable investment in real estate, &c.

### GENERAL DESCRIPTION.

Previous to the reduction the park contained 54 square miles, six along the international boundary and nine miles in a northerly direction, possessing many

PLATE XLI.



Cascade Mountain and Glacier, Waterton Lake Park. Photo by Riggall.

attractions for tourists, the lover of nature and the tired man of business who is confined to the office the greater part of the year.

### LAKES.

The lakes, of which there are three, are connected; the upper or first lake is about nine miles long and approximately 1½ miles wide, and 300 feet deep. It is

traversed by the international boundary line, nearly one-half of the lake being in Montana. The second lake is about two miles long by a mile wide and 60 feet deep. The third lake is one and one-half miles long, one mile wide and 25 feet deep. The Waterton river flows out of this lake.

### FISH.

All of these lakes contain numbers of trout, some of which (Mamayeush) grow to a large size; a few have been taken that weighed 45 and 50 pounds each. Last summer one was caught that turned the scales at 25½ pounds. There are also pike and grayling. No netting has been allowed for some years.

PLATE XLII.

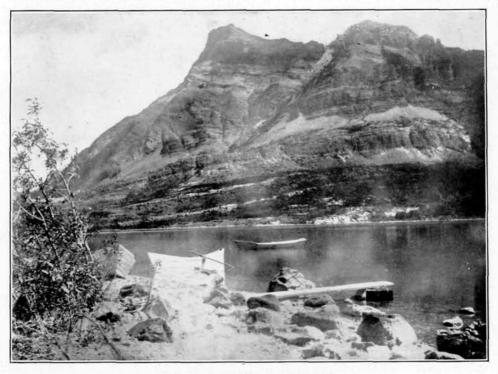


Photo by Riggall.

Sofa Mountain, Waterton Lake Park.

# LOTS.

In November, 1910, Villa lots were surveyed by Mr. W. F. O'Hara, D.L.S. Lots 1, 2 and 3 in Block 4 are occupied by Mr. J. F. Hazzard who has built a pretty little hotel. Numbers 3 and 4 in block 6 are occupied by Christian F. Jensen who has an hotel and runs an automobile for passengers to and from Cardston. Applications have already been received for 13 other lots.

### VISITORS.

There were a number of visitors last season but many were deterred from coming owing to the prevailing wet season and the height of the creeks and rivers.

### BOATS.

Mr. Hazzard has a fine 4 H.P. gasoline launch and several row boats for hire. Dr. O. D. Weeks, a resident of Cardston has a nice little launch of 1½ H.P. (private) and Mr. Jensen has a number of row boats. If the roads are improved we will have autos from Macleod (60 miles) and Pincher Creek (40).

## ROADS.

In the latter end of August, 1911, a wagon road was begun from Block 6 to Cameron Falls creek which, with the bridge across the same, was completed by the 13th of November, when all work had to be stopped owing to the heavy snowfall. And here, I would respectfully suggest that, owing to the early snowfall and the impossibility of doing any work late in the autumn, it would be advisable to commence any desired improvements early in the summer, more especially as there is a great difficulty in obtaining men during haying and harvest.

### TRAILS.

A trail to Lake Bertha, a beautiful spot in the high mountains is much wished for, also a trail up Cameron Falls creek to Oil City, and should the park be enlarged, a trail on the east side of the lakes to the United States boundary line will be required.

### BRIDGES.

Work was started this spring on a bridge over Pass Creek which we hope to see finished before high water. This bridge will be much appreciated by the people of the Pincher Creek district, a great many of whom have applied for building villa lots, and who will build early this summer. In high water this creek is a rapid mountain torrent. Last September two gentlemen from Cardston and the writer very nearly lost their lives here owing to the upsetting of a light wagon and several parties were held up for many days by the freshet.

### THE KOOTENAY PASS.

A portion of the park is or was in the Pass where there is a trail that has been used by the Indians for many years. There is now a rough wagon road over the summit to British Columbia and Montana for an approximate distance of one hundred and twenty-five miles, with an elevation of 7,100 feet at the water-shed where there is a celebrated fishing place. Walled lake, found and called so by the writer many years ago. There is also splendid trout fishing in the Flathead river.

### MINERALS AND METALS.

At many places close to this road petroleum seepages exist, and much money has been expended in the endeavour to find oil in paying quantities. Holes have been drilled to 1,700 feet. The Pincher Creek Oil Co. did some work on their claims last summer. Float copper is abundant. A claim just outside the old park limits has been prospected a little but so far only low grade ore, 10 per cent, has been found. Float cannel coal is found on the lake shores.

# GAME.

This portion of the Rocky Mountains has always been celebrated for its game; larger sheep heads have been obtained in this vicinity than elsewhere and since the creation of this park and the strict enforcement of the regulations by the officers

employed, the increase is notable. Several moose have been tracked and some seen. This winter, mountain lions and wolves have killed some deer but we hope to be able to exterminate the former in one way or another.

### PATROL.

Constant patrols are made; indeed, they are highly necessary especially in summer when the danger from fire is very great owing to the prevailing high south winds and the large numbers of campers.

# FUTURE REQUIREMENTS.

A fire-guard should be ploughed close to the base of the mountain and telephone lines established. These would greatly assist the Forest Rangers. I have just forwarded a long list of persons desirous of having a telephone established to the Chief Superintendent. A bridge or ferry over the Waterton River is urgently required and I beg to call your attention to the fact that there is no bridge here for forty miles although there are three on the Belly river in the same distance. The high water lasts from six weeks to two months during which time the river is unfordable; there can be no communication between shores except by rowboat; horses have to swim; several are drowned each year and three lives have been lost on the ford. A ferry could be put in easily but this ford is outside of the present park lines.

# ENLARGEMENT OF THE PARK.

In conclusion I may add that the enlargement of this Park is greatly desired by the people of the district as also by all sportsmen here and on the United States side. The Campfire Club of America is very anxious to co-operate with any action taken for the protection of our fast disappearing game. There is a vast area here that seems to be useless for any other purpose.

I have the honour to be, sir,

Your obedient servant,

JOHN GEORGE BROWN,

Forest Ranger in charge Waterton Lake Park.

# No. 7.

# REPORT ON THE ST. LAWRENCE ISLAND PARKS.

DEPARTMENT OF THE INTERIOR, DOMINION PARKS BRANCH, OTTAWA, April 1, 1912.

To the Commissioner of Dominion Parks, Ottawa.

Sir,—I beg to submit my second annual report in connection with the St. Lawrence Islands Parks.

These parks, located as their title suggests, on the St. Lawrence river, constitute the only eastern reservation in the series of Dominion Parks, all the others lying in the far west. There are few points of comparison, beyond those of beauty and charm, between this little island reservation in the east and its vast sister reservations in the west. There are, however, many points of contrast as one recalls the large area of western parks, with their wealth of lakes, streams and mountain scenery and

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their forests of pine and spruce which afford sanctuary for almost every form of animal life incidental to the west. Yet each of these islands, though but a few acres in extent, fulfils the park idea as truly in its particular setting as the immense mountain reservations in the west; that is, they are places of public resort for out-door recreation, rest and pleasure. And to the hungry fisherman, canoeist, or launch party, the tired city dweller or the Sunday school excursion, excluded from other islands in the river by private ownership, these islands are a great convenience. They are situated at intervals over a stretch of thirty miles of river; most of them are

PLATE XLIII.



Bay in Beaurivage Island, St. Lawrence Islands Park.

beautifully wooded and display, within their limited areas, a suprisingly large variety of trees.

These islands have been made available to the public by the construction of picturesque pavilions, convenient wharfs, and landings and by furnishing a generous supply of tables, benches, stoves, &c. It has been the work of this Branch, during the past year, to maintain the equipment on each island in a serviceable condition and to keep the grounds clean and attractive. Sundry repairs have been executed at different points, and a wharf, suitable for skiffs and launches, has been built at Aubrey island. Open-air stoves have been built on three of the unimproved islands

as a discouragement to promiscuous fire building, and additional stoves have been built on the other islands where necessary.

Only one of the islands is without a good growth of trees, namely, that at Mallorytown Landing, and this is because the island is nearly all rock. It is hoped, however, to have a number of trees planted there in the near future which in time will do much to relieve the somewhat barren aspect of the surroundings.

I made a trip of inspection over the islands last spring and arranged with the different guardians for carrying on the work.

PLATE XLIV.



Government Pavilion on Gordon Island, St. Lawrence Islands Park.

The annually increasing number of visitors who frequent these islands is, perhaps, the best expression of public appreciation that can be desired.

Attached is a tabular statement giving certain information in connection with each island in the reservation.

Your obedient servant.

FRED. H. BYSHE,

Superintendent.

# TABULAR statement in connection with the Thousand Island Park.

| Name.                | Area.        | Location.   | Nature of Improvements.   |  |
|----------------------|--------------|---|---|--|
|                      | Approximate  | . Approximate.                                    |   |  |
| Aubrey               | 15 acres     | 2½ miles W. of Gananoque.                         | 1 launch wharf, 1 pavilion (No. 9), 2<br>stoves, 2 outclosets, 4 tables, 2 garbage<br>cans, 8 benches, (Marine light.)  |  |
| Mermaid              | 4 "          | Close to Aubrey                                   | , ,   |  |
|                      |              |   | Steamboat and skiff wharves, 1 pavilion<br>(No. 1), 4 stoves, 2 outclosets, 4 tables,<br>14 benches, 2 garbage cans.  |  |
| Gordon               | 16 to 20 " . | 2 miles S.E. of Gananoque                         | Steamboat and skiff wharves, 1 pavilion (No. 2), 3 stoves, 2 outclosets, 4 tables, 10 benches, 2 garbage cans.  |  |
|                      | 25 " .       | 3 miles S.E. of Gananoque.                        | 1 stove.  |  |
| Endymion             |              | 3 miles S. E. of Gananoque.                       |   |  |
| Georgina             | 23 ".        | 9½ miles E. of Gananoque.                         | On W. end steamboat and skiff wheres, 1 pavilion (No. 3), 2 stoves, 2 closets, 4 tables, 12 benches, 2 garbage cans. On E. end skiff wharf 3 stoves, 2 closets, 4 tables, 14 benches, 2 garbage cans. |  |
|                      |              |   | 1 stove.  |  |
| Grenadier            | 5.1 " .      | West end of Grenadier<br>Island, near Rockport    | Steamboat wharf, 1 pavilion (No. 5),<br>2 stoves, 2 closets, 4 tables, 12 b. aches,   |  |
| Mallountonn Tandina  |              | 10 W D 1 11                                       | 2 garbage cans.   |  |
| Mallorytown Landing. |              | 12 miles W. Brockville (part mainland)            | Steamboat wharf, 1 pavilion (No. 6),<br>1 stove, 2 closets, 2 tables, 7 benches,  |  |
| Adelaide             | 11 " .       | 1 <sup>1</sup> miles S. of Mallorytown<br>Landing | 1 garbage can.  |  |
| Stovin               | ð ".         | 2½ miles W. of Brockville.                        | Steamboat and skiff wharves, 2 pavilions (Nos. 7 and 8), 5 stoves, 4 closets, 6 tables, 16 benches, 6 garbage cans.   |  |

